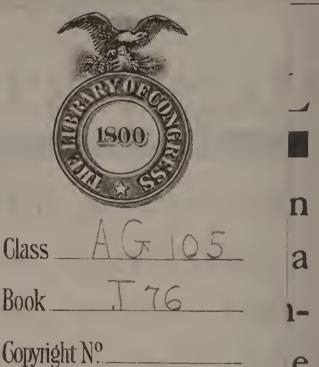


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Dyspepsia in all its forms

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Liver Complaints and all Bilious Disorders

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CURES ALL FORMS OF

Rheumatism

NEVER FAILS

PRESCRIPTION 8240, THE RHEUMATISM CURE, will cure the worst case of Rheumatism or Gout. It matters not of how long standing, or whatever the cause—Prescription 8240 never fails.

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Blood and Nerve Tonic

Buck & Rayner's Beef, Iron and Wine with Celery

A FOOD FOR BODY AND BRAIN

A most successful remedy for impoverished blood, lost vitality, wasting diseases, loss of appetite, nervousness, lack of energy, fainting spells, trembling, sleeplessness, melancholia. Buck & Rayner's Beef, Iron and Wine WITH CELERY SHOULD NOT BE CLASSED WITH ORDINARY BEEF, IRON AND WINE, which is often made from cheap materials. It is a scientific compound containing celery and tonics to form a perfect brain and blood builder. Thousands of people in this city use it as IT PUTS NEW LIFE IN THE BLOOD. In offering our BEEF, IRON AND WINE WITH CELERY to the public we know that we offer a preparation of unquestionable value as a food and a tonic to the enfeebled system in convalescence from acute illness, as well as a powerful stimulant, which may be depended upon to tide the patient over a critical period, restore appetite, and by its stimulating effect upon the stomach cause an increased flow of the gastric juices, thereby aiding digestion and assimilation of food, and thus give strength to all parts of the body.

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A Little Buck & Rayner's Moth Powder Used According to Directions Will Kill Everything in the Line of Insects

NY WOMAN who has tried her best to keep her house free from Moths and other insects will be able to testify to the truth of the above statement. It is not only from the general public that we have learned this fact, but also from men in positions where they have had all the facilities offered by science, chemistry and pharmacy at their command to combat the evil, and through a long term of years we have not only experimented, but have arrived at a satisfactory result, and offer to the public a product which has been tried and which we know will do the work.

Buck & Rayner's Moth Powder

has no disagreeable odor. Is harmless to mankind and domestic animals. Does not injure the clothes.

Buck & Rayner's Moth Powder

is the only powder in the market, at present, that will absolutely prevent moths from invading your clothes chest or closet.

IF YOU FOLLOW DIRECTIONS ON THE PACKAGE, YOU WILL NEVER BE TROUBLED WITH MOTH-EATEN GARMENTS

The JACROSE Benzoin Lotion

THE ORIGINAL

HE curative virtues of true Siam Benzoin have long been appreciated by ladies of the Orient. The genuine article is scarce and troublesome to handle, owing to its insolubility. After repeated experiments our chemist succeeded in his efforts to present it in clear solution smooth and refreshing, suitable for toilet use, and the result is the elegant Jacrose Benzoin Lotion. Many imitators have sought to equal this unique preparation, but a comparison in every instance demonstrates the fact that ours is the one perfect toilet liniment. For restoring, reviving and strengthening the skin and complexion, for chapped hands, face, or any roughness or redness of the skin it is acknowledged a wonderful discovery. In fact it is a household panacea and healing, soothing balm. The Jacrose Benzoin Lotion is used either plain or diluted with water, as desired. For washing, always add about a tablespoonful to the basin of water and a proportionate quantity for the bath. It renders the water soft and unctious and imparts to the skin a firmness, transparency and healthy glow, that is most refreshing, healthful and attractive. Price, 50 cents.

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An Excellent Substitute
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For the Hair
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THE

NUTSHELL CYCLOPEDIA

AND

TREASURY OF READY REFERENCE



"Which—if you but open—you will be un willing, for many a shilling, to part with the profit which you shall have of it."

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For Index see page 305

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JOSEPH TRIENENS
1905

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To Our Patrons

N PRESENTING you with this booklet we have the pleasure of offering you a volume of exceptional merit. It has been our aim to compile a volume which will be

found interesting and instructive to every one who receives it. The subjects have been selected with great care and are thoroughly up-to-date. They comprise items of interest to almost every one and contain matter often difficult to find in ordinary books of reference. The reading matter is absolutely free from advertising in any form, and the subjects are treated in an entirely unprejudiced manner. They are in harmony with the latest advanced belief and knowledge of the matter under discussion. The advertisements in this booklet are from concerns of established reputation, whose products we freely recommend with every confidence that they are the best of their respective kinds. We, therefore, present this booklet with the assurance that the advertisers are entitled to your entire confidence and the information worthy of your careful inspection.

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This rule to all when I am dead:
Be sure you're right, then go ahead.
—DAYY CROCKETT.



NUTSHELL ITEMS.

Handy Facts to Settle Many Arguments.

- * London plague in 1665.
- * Telephone invented, 1861.
- * There are 2,750 languages.
- * Two persons die every second.
- * Sound moves 743 miles per hour.
- * Chinese invented paper, 170 B. C.
- * A square mile contains 640 acres.
- Hawks can fly 150 miles in one hour.
- * A barrel of pork weighs 200 pounds.
- * Phonograph invented by Edison, 1877.
- Watches were first constructed in 1476.
- * Chinese in United States in 1900, 114,106.
- Gold was discovered in California in 1848.
- * Rome was founded by Romulus, 752 B. C.
- * The first balloon ascended from Lyons, France, 1783:
- * The first fire insurance office in America. Boston, 1724.
- * Napoleon I. crowned emperor, 1804; died at St. Helena, 1820.
- * Jet is found along the coast of Yorkshire, Eng., near Whitby.
- * Electric light invented by Lodyguin and Kossloff, at London,
- * Harvard is the oldest college in the United States; established in 1638.
- * War declared with Great Britain, June 19, 1812; peace, Feb. 18. 1815.
- *Until 1776 cotton spinning was performed by the hand spinning wheel.
- * Measure 209 feet on each side and you will have a square acre within an inch.

- * Envelopes were first used in 1839.
- * Telescopes were invented in 1590.
- * Iron horseshoes were made in 481.
- * A barrel of flour weighs 196 pounds.
- *A rifle ball moves 1,000 miles per hour.
- * Assassination of Lincoln, April 14, 1865.
- * First steamer crossed the Atlantic, 1819.
- * A hand (horse measure) is four inches.
- * German empire re-established, Jan. 18, 1871.
- *Dark Ages, from the 6th to the 14th century.
- * The great London fire occurred Sept. 26, 1666.
- *Storm clouds move thirty-six miles an hour.
- * First subscription library, Philadelphia, 1731.
- * The Latin tongue became obsolete about 580.
- * The value of a ton of pure gold is \$602,799.21.
- * Ether was first used for surgical purposes in 1844.
- * Ignatius Loyola founded the order of Jesuits, 1541.
- * First authentic use of organs, 755; in England, 951.
- * The first newspaper advertisement appeared in 1652.
- * Glass windows (colored) were used in the 8th century.
- * Benjamin Franklin used the first lightning rods, 1752.
- * Cork is the bark taken from a species of the oak tree.
- * Authentic history of China commenced 3,000 years B. C.
- * Introduction of homeopathy into the United States, 1825.
- * First electric telegraph, Paddington to Brayton, Eng., 1835.
- * Spectacles were invented by an Italian in the 13th century.
- * Medicine was introduced into Rome from Greece, 200 B. C.
- * Soap was first manufactured in England in the 16th century.
- * The Chaldeans were the first people who worked in metals.
- * First life insurance, in London, 1772; in America, Phila., 1812.
- * Egyptian pottery is the oldest known; dates from 2,000 B. C.
- * Julius Cæsar invaded Britain, 55 B. C.; assassinated, 44 B. C.
- * The largest free territorial government is the United States.
- * First photographs produced in England, 1802; perfected, 1841.
- * Postage stamps first came into use in England in the year 1840; in the United States, in 1847.
- *The highest range of mountains are the Himalayas, the mean elevation being from 16,000 to 18,000 feet.
- * The largest inland sea is the Caspian, between Europe and Asia, being 700 miles long and 270 miles wide.
- *The term "Almighty Dollar" originated with Washington Irving, as a satire on the American love for gain.

- * First Atlantic cable operated, 1858.
- * A barrel of rice weighs 600 pounds.
- * The first steel pen was made in 1830.
- * Light moves 187,000 miles per second.
- * Slow rivers flow seven miles per hour.
- *A storm moves thirty-six miles per hour.
- * The first lucifer match was made in 1829.
- * Battles of Bunker Hill and Lexington, 1775.
- * First musical notes used, 1338; printed, 1502.
- * The largest island in the world is Australia.
- * Kerosene was first used for illuminating in 1826.
- * National banks first established in United States, 1816.
- *Slavery in the United States was begun at Jamestown in 1619.
- * First postoffice established, between Vienna and Brussels, 1516.
- * First marine insurance, A. D. 533; England, 1598; America, 1721.
- *The Alexandrian Library contained 400,000 valuable books, 47 B. C.
- * Professor Oersted, Copenhagen, discovered electro-magnetism, in 1819.
- * Congress declared war with Mexico, May 13, 1846; closed Feb. 2. 1848.
- * Moscow, Russia, has the largest bell in the world, 432,000 pounds.
- * The highest denomination of United States legal tender notes is \$10,000.
- * The electric eel is found only in the northern rivers of South America.
- * First American express, New York to Boston, by W. F. Harnden.
- * The first theater in the United States was at Williamsburg Va., 1752.
- * Columbus discovered America, Oct. 12, 1492; the Northmen, A. D. 985.
- *Glass windows were first introduced into England in the 8th century.
- *The first complete sewing machine was patented by Elias Howe, Jr., in 1846.
- * Chicago is little more than sixty years old, and is the sixth city in the world.
- * Glass was made in Egypt, 3,000 B. C.; earliest date of transparent glass, 719 B. C.
- * First public schools in America were established in the New England States about 1642.

9

- * America was discovered in 1492.
- * A firkin of butter weighs 56 pounds.
- * Pianoforte invented in Italy about 1710.
- * A span is ten and seven-eighths inches.
- * The value of a ton of silver is \$37,704.84.
- * First watches made in Nuremberg, 1476.
- * French and Indian War in America, 1754.
- * A hurricane moves eighty miles per hour.
- * Modern needles first came into use in 1545.
- * The first horse railroad was built in 1826-7.
- * Coaches were first used in England in 1569.
- * Electricity moves 288,000 miles per second.
- * French Revolution, 1789; Reign of Terror, 1793.
- * The average human life is thirty-three years.
- *\$1,000,000 gold coin weighs 3,685.8 lbs. avoirdupois.
- * Mormons arrived at Salt Lake Valley, Utah, July 24, 1847.
- * Experiments in electric lighting, by Thomas A. Edison, 1878-80.
- * Daguerre and Nieper invented the process of daguerreotype, 1839.
- * The largest cavern in the world is the Mamomth Cave, Kentucky.
- * First American library founded at Harvard College, Cambridge, 1638.
- * First cotton raised in the United States was in Virginia, in 1621; first exported, 1747.
- * First sugar-cane cultivated in the United States, near New Orleans, 1751; first sugar-mill, 1758.
- *The largest university is Oxford, in England. It consists of twenty-one colleges and five halls.
- *First telegraph in operation in America was between Washington and Baltimore, May 27, 1844.
- *The first illumination with gas was in Cornwall, Eng., 1792; in the United States, at Boston, 1822.
- * Printing was known in China in the 6th century; introduced into England about 1474; America, 1536.
- *Glass mirrors first made by Venetians in the 13th century. Polished metal was used before that time.
- *The great wall of China, built 200 B. C., is 1,250 miles in length, 20 feet high, and 25 feet thick at the base.
- * Meerschaum means "froth of the sea." It is white and soft when dug from the earth, but soon hardens.
- * London is the largest city in the world, containing a population of 4,536,034 persons, not including suburbs.

- * The first iron ore discovered in this country was found in Virginia in 1715.
- * Albert Durer gave the world a prophecy of future wood engraving in 1527.
- * "Bravest of the Brave" was the title given to Marshal New at Friedland, 1807.
- *The first steam engine on this continent was brought from England in 1753.
- *The most extensive park is Deer Park in Denmark. It contains 4,200 acres.
- * Books in their present form were invented by Attalus, king of Pergamus, in 887.
- * Robert Raikes established the first Sunday-school, at Gloucester, Eng., 1781.
- *St. Augustine, oldest city in the United States, founded by the Spaniards, 1565.
- *The first volunteer fire company in the United States was at Philadelphia, 1736.
- * Jamestown, Va., founded, 1607; first permanent English settlement in America.
- *Oberlin College, Ohio, was the first in the United States that admitted female students.
- * The first knives were used in England, and the first wheeled carriages in France, in 1559.
- *The largest park in the United States is Fairmount, at Philadelphia, and contains 2,740 acres.
- * The highest natural bridge in the world is at Rockbridge, Virginia, being 200 feet high to the bottom of the arch.
- * The largest circulation of paper money is that of the United States, being 700 millions, while Russia has 670 millions.
- * The largest empire in the world it that of Great Britain, being 8,557,658 square miles, and more than a sixth part of the globe.
- *The longest tunnel in the world is St. Gothard, on the line of the railroad between Lucerne and Milan, being 9½ miles in length.
- *The first electrical signal ever transmitted between Europe and America passed over the Field submarine cable on Aug. 5, 1858.
- *Burnt brick were known to have been used in building the Tower of Babel. They were introduced into England by the Romans.
- *The loftiest active volcano is Popocatapetl. It is 17,784 feet high, and has a crater three miles in circumference and 1,000 feet deep.
- *The largest insurance company in the world is the Mutual Life of New York City having cash and real-estate assets of over \$350,000,000.

- Paris was known as Lutetia until 1184, when the name of the great French capital was changed to that which it has borne ever since.
- * The largest tree in the world, as yet discovered, is near Fresno, California. It is 154 feet 8 inches in circumference 6 feet from the ground.
- * The largest desert is Sahara, in Northern Africa. Its length is 3,000 miles and breadth 900 miles; having an area of 2,000,000 square miles.
- *The first deaf and dumb asylum was founded in England, by Thomas Braidwood, 1760; and the first in the United States was at Hartford, 1817.
- *The largest volcano in the world is Etna. Its base is 90 miles in circumference; its cone 11,000 feet high. Its first eruption occurred 474 B. C.
- *The largest suspension bridge is the Brooklyn. The length of the main span is 1,595 feet 6 inches. The entire length of the bridge is 5,989 feet.
- *The most remarkable echo known is that in the castle of Simonetta, two miles from Milan. It repeats the echo of a pistol shot sixty times.
- *The largest diamond in the world is the Braganza, being a part of the Portuguese jewels. It weighs 1,880 carats. It was found in Brazil in 1741.
- *The "Valley of Death," in the island of Java, is simply the crater of an extinct volcano, filled with carbonic-acid gas. It is half a mile in circumference.
- *The grade of titles in Great Britain stands in the following order from the highest: A Prince, Duke, Marquis, Earl, Viscount, Baron, Baronet, Knight.
- * The city of Amsterdam, Holland, is built upon piles driven into the ground. It is intersected by numerous canals, crossed by nearly three hundred bridges.
- *Coal was used as fuel in England as early as 852, and in 1234 the first charter to dig for it was granted by Henry III. to the inhabitants of Newcastle-on-Tyne.
- *Tobacco was discovered in San Domingo in 1496; afterwards by the Spaniards in Yucatan in 1520. It was introduced into France in 1560, and into England in 1583.
- *The present national colors of the United States were not adopted by Congress until 1777. The flag was first used by Washington at Cambridge, January 1, 1776.
- The longest span of wire in the world is used for a telegraph in India over the river Ristuah. It is over 6,000 feet, and is stretched between two hills, 1,200 feet high.
- *The tallest man was John Hale, of Lancashire, England, who was nine feet six inches in height. His hand was seventeen inches long and eight and one-half inches broad.

- *In round numbers, the weight of \$1,000,000 in standard gold coin is 1¾ tons; standard silver coin, 26¾ tons; subsidiary silver coin, 25 tons; minor coin, 5-cent nickel, 100 tons.
- * The highest monument in the world is the Washington monument, being 555 feet. The highest structure of any kind is the Eiffel Tower, Paris, finished in 1889, and 989 feet high.
- *There has been no irregularity in the recurrence of leap year every four years since 1800, except in 1900, which was a common year, although it came fourth after the preceding leap year.
- *It is claimed that crows, eagles, ravens and swans live to be 100 years old; herons, 59; parrots, 60; pelicans and geese, 50; skylarks, 30; sparrow haks, 40; peacocks, canaries and cranes, 24.
- *The greatest cataract in the world is Niagara, the height of the American Falls being 165 feet. The highest fall of water in the world is that of the Yosemite in California, being 2,550 feet.
- *The most ancient catacombs are those of the Theban kings, begun 4,000 years ago. The catacombs of Rome contain the remains of about 6,000,000 human beings; those of Paris, 3,000,000.
- *The first English newspaper was the English Mercury, issued in the reign of Queen Elizabeth, and was issued in the shape of a pamphlet. The Gazette of Venice was the original model of the modern newspaper.
- * The seven sages flourished in Greece in the 6th century B. C. They were renowned for their maxims of life, and as the authors of the mottoes inscribed in the Delphian Temple. Their names are: Solon, Chilo, Pittacus, Bias, Periander, Cleobolus, and Thales.
- * The largest producing farm in the world lies in the southwest corner of Louisiana, owned by a Northern syndicate. It runs one hundred miles north and south. The immense tract is divided into convenient pastures, with stations of ranches every six miles. The fencing alone cost nearly \$50,000.
- *The "Seven Wonders of the World" are seven most remarkable objects of the ancient world. They are: The Pyramids of Egypt, Pharos of Alexandria, Walls and Hanging Gardens of Babylon, Temple of Diana at Ephesus, the Statue of the Olympian Jupiter, Mausoleum of Artemisia, and Colossus of Rhodes.
- *A "monkey wrench" is not so named because it is a handy thing to monkey with, or for any kindred reason. "Monkey" is not its name at all, but "Moncky." Charles Moncky, the inventor of it, sold his patent for \$2,000, and invested the money in a house in Williamsburgh, Kings County, N. Y., where he now lives.
- *The union arch of the Washington Aqueduct is the largest in the world, being 220 feet; 20 feet in excess of the Chester arch across the Dee in England, 68 feet longer than that of the London Bridge; 92 feet longer than that at Neuilly on the Seine, and 100 feet longer than that of Waterloo Bridge. The height of the Washington arch is 100 feet.

- *The Oceanic, 1899, and the Celtic, 1901, are the longest ships built. They are, respectively, 705 feet and 700 feet long and 68 and 70 feet beam. The Great Eastern, recently broken to pieces and sold to junk dealers before 1899, was designed and constructed by Scott Russell, at Maxwell, on the Thames. Work on the giant vessel was commenced in May, 1854. She was successfully launched January 13, 1858. The launching alone occupied the time from November 3, 1857, until the date above given. Her total length was 692 feet; breadth, 118 feet; total weight when launched, 12,000 tons. Her first trip of any consequence was made to New York in 1859-60.
- * In 1775 there were only twenty-seven newspapers published in the United States. Ten years later, in 1785, there were seven published in the English language in Philadelphia alone, of which one was a daily. The oldest newspaper published in Philadelphia at the time of the Federal convention was the Pennsylvania Gazette, established by Samuel Keimer, in 1728. The second newspaper in point of age was the Pennsylvania Journal, established in 1742 by William Bradford, whose uncle, Andrew Bradford, established the first newspaper in Pennsylvania, the American Weekly Mercury, in 1719. Next in age, but the first in importance, was the Pennsylvania Packet, established by John Dunlap, in 1771. In 1784 it became a daily, being the first daily newspaper printed on this continent.
- *Statistics of twenty leading libraries in this country show that, of over \$500,000 spent, a little more than \$170,000 was devoted to books, while other expenses consumed \$358,000. In the Mercantile Library of New York City it costs 14 cents to circulate a volume; in the Astor, 14½ cents are spent on each volume, or 27 cents on each reader; in Columbia College Library, 21½ cents per reader; in the Library Company of Philadelphia, 26 cents per volume, or 10 cents per head. The largest library in the world is the National Library of France, founded by Louis XIV., which now contains 1,400,000 books, 30,000 pamphlets, 175,000 manuscripts, 300,000 maps and charts, 150,000 coins and medals, 1,300,000 engravings, and 100,000 portraits. The Library of Congress is the largest in this country, as it contained 995,166 volumes in 1900. There are in the United States about 6,000 libraries.
- *The most extensive mines in the world are those of Freiberg, Saxony. They were begun in the twelfth century, and in 1875 the galleries, taken collectively, had reached the unprecedented length of 123 miles. A new gallery, begun in 1838, had reached a length of eight miles at the time of the census of 1878. The deepest perpendicular mining shaft in the world is located at Prizilram, Bohemia. It is a lead mine; it was begun in 1836 January, 1880, it was 3,280 feet deep. The deepest coal minute in the world is near Tourney, Belgium; it is 3,542 feet in depth, but, unlike the lead mine mentioned above, it is not perpendicular. The deepest rock-salt bore in the world is near Perlin Prussia; it is 4,185 feet deep. The deepest hole ever bored into

the earth is the artesian well at Potsdam, which is 5,500 feet in depth. The deepest coal mines in England are the Dunkirk collieries of Lancashire, which are 2,824 feet in depth. The deepest coal shaft in the United States is located at Pottsville, Pa. In 1885 it had reached a depth of 1,576 feet. From this great depth 400 cars, holding four tons each, are hoisted daily. The deepest silver mine in the United States is the Yellow Jacket, one of the great Comstock system at Virginia City, Nevada; the lower levels are 2,700 feet below the hoisting works.

- * The largest locomotive ever constructed prior to 1880 was that made at the Baldwin Locomotive Works during the early part of 1879. It was turned out ready for use April 10th of that year and named Uncle Dick. Uncle Dick weighed 130,000 pounds; was sixty feet from headlight to the rear end of the tender. He is now at work on the Atchison, Topeka & Santa Fe road. During the year 1883 the same works that constructed Uncle Dick turned out several locomotives for the Northern Pacific railroad, each weighing 180,000 pounds. During the same year, as if to overshadow the Baldwin works, the Central Pacific company caused to be built at their shops in Sacramento, Cal., engines weighing with the tender, as Uncle Dick's weight was given, almost 190,000 pounds. The Baldwin Works, in 1889, completed for the Northern Pacific an engine weighing, with tender, 225,000 pounds. In 1900 there were built for the Pittsburg, Bessemer & Lake Erie the largest locomotives in the world, each weighing, with tender, 391,400 pounds.
- "'Liberty," Bartholdi's statue, presented to the United States by the French people in 1885, is the largest statue ever built. Its conception is due to the great French sculptor whose name it bears. It is said to be a likeness of his mother. Eight years of time were consumed in the construction of this gigantic brazen image. Its weight is 440,000 pounds, of which 146,000 pounds are copper, the remainder iron and steel. The major part of the iron and steel are used in constructing the skeleton frame work for the inside. The mammoth electric light held in the hands of the giantess is 305 feet above tide-water. The height of the figure is 152½ feet; the pedestal 91 feet, and the foundation 52 feet and 10 inches. Forty persons can find standing-room within the mighty head, which is $14\frac{1}{2}$ feet in diameter. A six-foot man standing on the lower lip could hardly reach the eyes. The index finger is eight feet in length and the nose 3% feet. The Colossus of Rhodes was a pigmy compared with this latter-day wonder.
- *The largest stone bridge on the face of the earth is that finished in May, 1885, at Lagang, China. Chinese engineers had sole control of its construction. It crosses an arm of the China Sea, is nearly six miles in length, is composed entirely of stone, and has 300 arches, each 70 feet high. It is the most colossal structure ever reared by man, yet we sneer at the "heathen Chinee." The largest truss iron bridge in the world crosses the Firth of Tay, Scotland. It is 18,612 feet in length and composed

of eighty-five spans. The longest wooden bridge in the world is that crossing Lake Ponchartrain, near New Orleans, La. It is a trestle-work twenty-one miles in length, built of cypress piles which have been saturated with creosote oil to preserve them. The highest bridge in the United States is over Kinzina Creek, near Bradford, Pa. It was built in 1882, has a total span of 2,051 feet, and is 301 feet above the creek bed.

- *The largest and grandest temple of worship in the world is the St. Peter's Cathedral at Rome. It stands on the site of Nero's circus, in the northwest part of the city, and is built in form of a Latin cross. The total length of the interior is 612½ English feet; transept, 446½ feet; height of nave, 152½ feet; diameter of cupola, 193 feet; height of dome from pavement to top of cross, 448 feet. The great bell alone, without the hammer or clapper, weighs 18,600 pounds, or over 9¼ tons. The foundation was laid in 1450 A. D. Forty-three Popes lived and died during the time the work was in progress. It was dedicated in the year 1826, but not entirely finished until the year 1880. The cost, in round numbers, is set down at \$70,000,000.
- *The great pyramid of Cheops is the largest structure of any kind ever erected by the hand of man. Its original dimensions at the base were 764 feet square, and its perpendicular height in the highest point 488 feet; it covers four acres, one rood and twenty-two perches of ground and has been estimated by an eminent English architect to have cost not less than £30,-000,000, which in United States currency would be about \$145,-200,000. Internal evidence proves that the great pyramid was begun about the year 2170 B. C., about the time of the birth of Abraham. It is estimated that about 5,000,000 tons of hewn stone were used in its construction, and the evidence points to the fact that these stones were brought a distance of about 700 miles from quarries in Arabia.
- *The "Centennial ox," bred by Samuel Barkley of Somerset County, Pa., was the largest specimen of the bovine the world has ever seen. He weighed 4,900 pounds the day he arrived in Philadelphia. This mountain of beef was of mixed stock, being short-horn, native, "scrub" and Ayrshire, the short-horn predominating. After the exhibition was ended the giant ox was butchered and exhibited as "show beef" at Philadelphia during the holidays of 1876. A short-horn steer weighing 4,100 pounds was slaughtered at Detroit in 1874. A. N. Meal of Moberly, Mo., formerly owned the largest cow in the world. Mr. Meal disposed of her in 1883, the Cole Circus Company being the purchasers. She weighed the day of sale 3,296 pounds. Mr. John Pratt of Chase County, Kan., was formerly the owner of a cow weighing 3,200 pounds. She was of the common "scrub" stock and stood nineteen hands high.
- The Capitol building at Washington, D. C., is the largest building in the United States. The corner stone was laid December 18th, 1793, by President Washington, assisted by other Masons. It was partially destroyed by the British in 1814. The present doma was begun in 1855 and finished in 1863. The flag

of the United States floated from it December 12th, 1863. The cost of the entire building has been something over \$13,000,000. Its length is 715 feet 4 inches; width, 324 feet. It covers 3½ acres of ground. The distance from the ground to the top of the dome is 307½ feet; diameter of the dome, 135½ feet—making fifth as to size with the greatest domes of the world.

*The largest body of frosh water in the world is Lake Superior. It is 400 miles long and 180 miles wide; its circumference, including the windings of its various bays, has been estimated at 1,800 miles. Its area in square miles is 32,000, which is greater than the whole of New England, leaving out Maine. The greatest depth of this inland sea is 200 fathoms, or 1,200 feet. Its average depth is about 160 fathoms. It is 636 feet above sea level. * The largest and costliest private mansion in the world is that belonging to Lord Bute, called Montstuart, and situated near Rothesay, England. It covers nearly two acres; is built in Gothic style; the walls, turrets and balconies are built of stone. The immense tower in the center of the building is 120 feet high, with a balcony around the top. The halls are constructed entirely of marble and alabaster, and the rooms are finished in mahogany, rosewood and walnut. The fire-places are all carved marbles of antique design. The exact cost of this fairy palace is not known, but it has never been estimated at less than \$8,000,000.

*The famous Corliss engine, the largest ever constructed, and the one used to drive the machinery in the great hall at the Centennial of 1876, is now in the shops of the Pullman Car Company at Pullman, near Chicago, Ill. The writer is aware that this differs from other statements that have been made, it being generally supposed that the Emperor of Brazil bought the engine and removed it to his own country. He did talk of buying it, but the bargain was never consummated. This tireless giant works in an upright position, is over 40 feet high, of 1,400 horse-power, and has two 40-inch cylinders and a 10-foot stroke.

*The corner stone of the Washington monument, the highest in the United States, and until 1889 the highest structure in the world, was laid July 4, 1848. Robert E. Winthrop, then Speaker of the House, delivered the oration. Work progressed steadily for about six years, until the funds of the monumental society became exhausted. At that time the monument was about 175 feet high. From 1854 until 1879 nothing to speak of was done on the building. In the year last above named Congress voted an appropriation of \$200,000 to complete the work. From that time forward work progressed at a rapid rate until December 6th, 1884, when the aluminum apex was set at 555 feet 5½ inches from the foundation and the work declared finished. The foundation is 146½ feet square; number of stones used above the 130-foot level, 19,163; total weight stone used in work, 81,120

* The largest ferry-boat ever constructed was named the Solano, and is now in use daily conveying trains across the Straits of

Carquinez, between Benecia and Port Costa. The Solano is 460 feet long, 116 feet wide, with 20 foot depth of hold. She has eight steel boilers, four rudders, and a tonnage of 3,841 tons. On her decks are four railway tracks, with capacity for 48 ordinary freight cars and two locomotives, or 28 passenger coaches of the largest build.

- *The largest State in our grand republic is Texas, which contains 274,350 square miles, capable of sustaining 20,000,000 of people, and then it would not be more crowded than Scotland is at present. It has been estimated that the entire population of the globe could be seated upon chairs within the boundary of Texas and each have four feet of elbow room.
- *The largest anvil is that used in the Woolwich Arsenal, England. It weighs sixty tons. The anvil block upon which it rests weighs 103 tons. Altogether 600 tons of iron were used in the anvil, the block and the foundation work. It is said to have been six months cooling before it was sufficiently hard to stand the shock of the immense hammer.
- *The Mississippi River, from the source of the Missouri to the Eads jetties, is the longest river in the world. It is 4,300 miles in length and drains an area of 1,726.000 square miles. The Amazon, which is without doubt the widest river in the world. including the Beni, is 4,000 miles in length and drains 2,330,009 square miles of territory.
- *The highest building in the world, not counting the Eiffel tower and the Washington monument, is the Cologne cathedral. The height from the pavement to the top of the cupola is 511 feet. It is 511 feet long, exactly the same as the height, and 231 feet wide. It was begun August 15th in the year 1248, and was pronounced finished August 4th, 1880, over 600 years after the corner stone was laid.
- The highest mountain on the globe is not, as is generally supposed, Mt. Everest, that honor belonging to a lofty peak named Mt. Hercules on the Isle of Papua, New Guinea, discovered by Capt. Lawson in 1881. According to Lawson, this monster is 32,763 feet in height, being 3,781 feet higher than Mt. Everest, which is only 29,002 feet above the level of the Indian Ocean.
- *New Orleans boasts the largest custom-house in this or any other land. It was begun in 1848, and over thirty years elapsed before it was finished and ready for use. It is built of Quincy granite, the interior being finished in finest marble. It has 111 rooms; height from the pavement to the top of the cornice is eighty feet, and to the top of the light on the dome 187 feet. The dome itself is 49 feet square and 61 feet high; estimated total cost of building, \$4,900,000.
- *Paris claims the finest theater in the world. It is of solid stone, finished with marble floors, and covers about four acres of ground. La Scala, of Milan, has the largest seating capacity, while the Auditorium at Chicago, completed in 1889, seating 7,000 people, ranks second in that respect.

The Name of God in Forty-eight Languages.

HebrewEleah, Jehovah	Olotu tongueDeu
ChaldaicEiliah	German and SwissGott
AssyrianEleah	FlemishGod
Syrian and TurkishAlah	Dutch
MalayAlla	EnglishGod
ArabicAllah	TeutonicGoth
Languages of the MagiOrsi	Danish and SwedishGud
Old EgyptianTeut	NorwegianGud
ArmenianTeuti	SlavBuch
Modern EgyptianTeun	PolishBog
GreekTheos	PolaccaBung
CretanThios	LappJubinal
Aedian and DorianIlos	FinnishJumala
LatinDeus	RunicAs
Low LatinDiex	ZemblianAs
Celtic GaelicDiu	PannonlanIstu
FrenchDieu	PannanlianIstu
SpanishDios	TartarMagatai
PortugueseDeos	CoromandelBrama
Old GermanDiet	PersianSire
ProvincialDiou	ChinesePrussa
Low BretonDone	
	JapaneseGoezer
ItalianDio	MadagascarZannar
IrishDia	PeruvianPuchecammae

*COMPARATIVE COST OF FREIGHT BY WATER AND RAIL.—It has been proved by actual test that a single tow-boat can transport at one trip from the Ohio to New Orleans 29,000 tons of coal, loaded in barges. Estimating in this way, the boat with its tow, worked by a few men, carries as much freight to its destination as 3.000 cars and 100 locomotives, manned by 600 men, could transport.

THE COPYING PAD.-Put 1 ounce of glue to soak in cold water until pliable and soft. Drain off the surplus water and place the dish in another dish containing hot water. When the glue is thoroughly melted, add 6 ounces of glycerine, which has been previously heated, and mix the two, adding a few drops of carbolic acid to prevent molding. Pour out this mixture into a shallow pan (9x12 inches) and set away to cool, taking care that the surface is free from blisters. After standing 12 hours it is ready for use. To use, write on a sheet of paper with a sharp steel pen and strong aniline ink what you wish to duplicate. When dry, lay the paper face down on the pad, pressing it lightly, and allow it to remain for a moment. On removing the paper an impression will be found on the face of the pad, and if another paper is placed upon it, it will receive similar impression. When enough impressions have been taken, the face of the pad should be immediately washed with a sponge and cold water until the ink impression is wholly removed. If the surface of the pad becomes dry, wipe it with a moist sponge, and, if uneven. melt over a slow fire.

19

So much has been said about Loisette's memory system, the art has been so widely advertised, and so carefully guarded from all the profane who do not send five or many dollars to the Professor, that a few pages, showing how every man may be his own Loisette, may be both interesting and valuable.

In the first place, the system is a good one, and well worth the labor of mastering, and if the directions are implicitly followed there can be no doubt that the memory will be greatly strengthened and improved, and that mnemonic feats otherwise impossible may be easily performed. Loisette, however, is not an inventor, but an introducer. He stands in the same relation to Dr. Pick that the retail dealer holds to the manufacturer: the one produced the article, the other brings it to the public. Even this statement is not quite fair to Loisette, for he has brought much practical common sense to bear upon Pick's system, and, in preparing the new art of mnemonics for the market, in many ways he has made it his own.

If each man would reflect upon the method by which he himself remembers things, he would find his hand upon the key of the whole mystery. For instance, I was once trying to remember the word blythe. There occurred to my mind the words "Bellman," "Belle," and the verse:

"— the peasant upward climbing Hears the bells of Buloss chiming."

"Barcarole," "Barrack," and so on, until finally the word "Blythe" presented itself with a strange insistance, long after I had ceased trying to recall it.

On another occasion, when trying to recall the name "Richardson," I got the words "hay-rick," "Robertson," "Randallstown," and finally "wealthy," from which, naturally, I got "rich" and "Richardson" almost in a breath.

Still another example: Trying to recall the name of an old

Still another example: Trying to recall the name of an old schoolmate, "Grady," I got "Brady," "grave," "gaseous," "gastronome," "gracious," and I finally abandoned the attempt, simply saying to myself that it began with a "G," and there was an "a" sound after it. The next morning, when thinking of something entirely different, this name "Grady" came up in my mind with as much distinctness as though someone had whispered it in my ear. This remembering was done without any conscious effort on my part, and was evidently the result of the exertion made the day before when the mnemonic processes were put to work. Every reader must have had a similar experience which he can recall, and which will fall in line with the examples given.

It follows, then, that when we endeavor, without the aid of any system, to recall a forgotten fact or name, our memory presents to us words of similar sound or meaning in its journey toward the goal to which we have started it. This goes to show that our ideas are arranged in groups in whatever secret cavity or recess of the brain they occupy, and that the arrangement

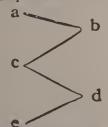
is not an alphabetical one exactly, and not entirely by meaning,

but after some fashion partaking of both.

If you are looking for the word "meadow" you may reach "middle" before you come to it, or "Mexico," or many words beginning with the "m" sound, or containing the "dow," as "window," or "dough," or you may get "field" or "farm"—but you are on the right track, and if you do not interfere with your intellectual process you will finally come to the idea which you are seeking.

How often have you heard people say, "I forget his name, it is something like Beadle or Beagle—at any rate it begins with a R." Each and all of these were unconscious Loisettians, and they were practicing blindly, and without proper method or direction, the excellent system which he teaches. The thing, then, to do—and it is the final and simple truth which Loisette teaches—is to travel over this ground in the other direction—to cement the fact which you wish to remember to some other fact or word which you know will be brought out by the implied conditions—and thus you will always be able to travel from your given starting-point to the thing which you wish to call to mind.

To illustrate: Let the broken line in the annexed diagram represent a train of thought. If we connect the idea "a" with



"e" through the steps b, c and d, the tendency of the mind ever afterwards will be to get to e from a that way, or from any of the intermediates that way. It seems as though a channel were cut in our mind-stuff along which the memory flows. How to make it flow this way will be seen later on. Loisette, in common with all the mnemonic teachers, uses the old device of rep-

resenting numbers by letters—and as this is the first and easiest step in the art, this seems to be the most logical place to introduce the accepted equivalents of the Arabic numerals:

0 is always represented by s, z or c soft

1 is always represented by t, th or d.

2 is always represented by n.

3 is always represented by m. 4 is always represented by r.

5 is always represented by 1.

6 is always represented by sh, j, ch soft or g soft

7 is always represented by g hard, k, c hard, q cr final ng.

8 is always represented by f or v. 9 is always represented by p or b.

All the other letters are used simply to fill up. Double letters in a word count only as one. In fact, the system goes by sound, not by spelling. For instance, "this" or "dizzy" would stand for ten; "catch" or "gush" would stand for 76, and the only difficulty is to make some word or phrase which will contain only the significant letters in the proper order, filled out with nonsignificants into some guise of meaning or intelligibility.* Sup-

^{*} See foot-note, p. 22.

pose you wished to get some phrase or word that would express the number 3,685, you arrange the letters this way:

	3		6		3		5
a e i o u lı w	121	a e i o u h	sh j ch g	a e i o u h	f V	a i o u h	1
x y		x y		X y		x y	

You can make out "image of law," "my shuffle," "match-ville," etc., etc., as far as you like to work it out.

Now, suppose you wished to memorize the fact that \$1,000,000 in gold weighs 3,685 pounds, you go about it in this way, and here is the kernel and crux of Loisette's system:

"How much does \$1,000,000 in gold weigh?"

"Weigh-scales."

"Scales-statue of Justice."

"Statue of Justice-image of law."

The process is simplicity itself. The thing you wish to recall, and that you fear to forget, is the weight; consequently you cement your chain of suggestion to the idea which is most prominent in your mental question. What do you weigh with? Scales. What does the mental picture of scales suggest? The statue of Justice, blindfolded and weighing out award and punishment to man. Finally, what is this statue of Justice but the image of law? And the words "image of law," translated back from the significant letters m, g soft, f and l, give you 3-6-8-5, the number of pounds in \$1,000,000 in gold. You bind together in your mind each separate step in the journey, the one suggests the other, and you will find a year from now that the fact will be as fresh in your memory as it is today. You cannot lose it. It is not chained to you by an unbreakable mnemonic tie. Mark that it is not claimed that "weight" will of itself suggest "scales," and "scales" "statue of Justice," etc., but that, having once passed your attention up and down that ladder of ideas, your mental tendency will be to take the same route, and get

^{*}You can remember the equivalents by noting the fact that z is the first letter of "zero," and c of "cipher," t has but one stroke, n has two, m three. The script î is very like 8, the script p like 9; r is the last letter of four, 1 is the Roman numeral for fifty, which suggests five. The others may be retained as memorizing these two nonsense lines:

to the same gcal again and again. Indeed, beginning with the weight of \$1,000,000, "image of law" will turn up in your mind without your consciousness of any intermediate station on the way, after some iteration and reiteration of the original chain.

Again, so as to fasten the process in the reader's mind even more firmly, suppose that it were desired to fix the date of the battle of Hastings (A. D. 1066) in the memory; 1066 may be represented by the words "the wise judge" (th -1, s -0, j -6, dg -6; the others are non-significants); a chain might be made thus:

Battle of Hastings-arbitrament of war.

Arbitrament of war-arbitration.

Arbitration-judgment.

Judgment-the wise judge.

Make mental pictures, connect ideas, repeat words and sounds, go about it any way you please, so that you will form a mental habit of connecting the "battle of Hastings" with the idea of "arbitrament of war," and so on for the other links in the chain, and the work is done.

Loisette makes the beginning of his system unnecessarily difficult, to say nothing of his illogical arrangement in the grammar of the art of memory, which he makes the first of his lessons. He analyzes suggestion into—

- 1. Inclusion.
- 2. Exclusion.
- 3. Concurrence.

All of which looks very scientific and orderly, but is really misleading and badly named. The truth is that one idea will suggest another:

1. By likeness or opposition of meaning, as "house" 'suggests "room" or "door," etc.; or, "white" suggests "black;" "cruel,"

"kind," etc.

2. By likeness of sound, as "harrow" and "barrow;" "Henry"

and "Hennepin."

3. By mental juxtaposition, a peculiarity different in each person, and depending upon each one's own experiences. Thus, "St. Charles" 'suggests "railway bridge" to me, because I was vividly impressed by the breaking of the Wabash bridge at that point. "Stable" and "broken leg" come near each other in my experience, so do "cow" and "shot-gun" and "licking."

Out of these three sorts of suggestion it is possible to get from any one fact to any other in a chain certain and safe, along which the mind may be depended upon afterwards always to

follow.

The chain is, of course, by no means all. Its making and its binding must be accompanied by a vivid, methodically directed attention, which turns all the mental light gettable in a focus upon the subject passing across the mind's screen. Before Loisette was thought of this was known. In the old times in England, in order to impress upon the mind of the rising generation the parish boundaries in the rural districts, the boys were taken to each of the landmarks in succession, the position

and bearings of each pointed out carefully, and, in order to deepen the impression, the young people were then and there vigorously thrashed—a mechanical method of attracting the attention which was said never to have failed. This system has had its supporters in many of the old-fashioned schools, and there are men who will read these lines who can recall, with an itching sense of vivid impression, the 144 lickings which were said to go with the multiplication table.

In default of a thrashing, however, the student must cultivate as best he can an intense fixity of perception upon every fact or word or date that he wishes to make permanently his own. It is easy. It is a matter of habit. If you will you can photograph an idea upon your cerebral gelatine so that neither years nor events will blot it out or overlay it. You must be clearly and distinctly aware of the thing you are putting into your mental treasure-house, and drastically certain of the cord by which you have tied it to some other thing of which you are sure. Unless it is worth your while to do this, you might as well abandon any hope of mnemonic improvement, which will not come without the hardest kind of hard work, although it is work that will grow constantly easier with practice and reiteration.

You need, then:

- 1. Methodic suggestion.
- 2. Methodic attention.
- 3. Methodic reiteration.

And this is all there is to Loisette, and a great deal it is. Two of them will not do without the third. You do not know how many steps there are from your hall door to your bed-room, though you have attended to and often reiterated the journey. But if there are twenty of them, and you have once bound the word "nice," or "nose," or "news," or "hyenas," to the fact of the stairway, you can never forget it.

The Professor makes a point, and very wisely, of the importance of working through some established chain, so that the whole may be carried away in the mind—not alone for the value of the facts so bound together, but for the mental discipline so afforded.

Here, then, is the "President Series," which contains the name and the date of inauguration of each president from Washington to Cleveland. The manner in which it is to be mastered is this: Beginning at the top, try to find in your mind some connection between each word and the one following it. See how you can at some future time make one suggest the next, either by suggestion of sound or sense, or by mental juxtaposition. When you have found this dwell on it attentively for a moment or two. Pass it backward and forward before you, and then go on to the next step.

The chain runs thus, the names of the presidents being in capitals, the date words or date phrases being inclosed in parentheses:

President......Chosen for the first word as the one most apt to occur to the mind of any one wishing to repeat the names of the presidents.

Dentist.......President and dentist.
Draw......What does a dentist do?

(To give up)....When something is drawn from one it is given up. This is a date phrase meaning 1789.

WASHINGTON. Associate the quality of self-sacrifice with Washington's character.

Morning wash...Washington and wash. Dew......Early wetness and dew.

Flower beds.....Dew and flowers.

(Tooka bouquet) Flowers and bouquet. Date phrase (1797.

Garden.....Bouquet and garden. Eden....The first garden.

AdamJuxtaposition of thought.

ADAMS......Suggestion by sound. Fall.....Juxtaposition of thought.

Failure......Fall and failure.

(Deficit)......Upon a failure there is usually a deficit. Date word (1801).

Debt.....The consequence of a deficit.

Confederate

bonds...Suggestion by meaning.

Jefferson Davis.Juxtaposition of thought.

JEFFERSON.

Now follow out the rest for yourself, taking about ten at a time, and binding those you do last to those you have done before each time, before attacking the next bunch.

1	2
JEFFERSON	(the funnel)
Judge Jeffreys	windpipe
(bloody assize)	throat
bereavement	quinzy
(too heavy a sob)	QUINCY ADAMS
parental grief	quince
mad son	fine fruit
MADISON	(the fine boy)
Madeira	sailor boy
first-rate wine	sailor
frustrating	jack tar
(defeating)	JACKSON
feet	stone wall
toe the line	indomitable
row	(tough make)
MONROE	oaken furniture
row	bureau
boat	VAN BUREN
steamer	rent

١

side-splitting (divert) annoy harassing HARRISON Old Harry the tempter (the fraud) painted clay baked clay tiles TYLER Wat Tyler poll tax compulsory (free will) free offering burnt offering poker FOLK end of dance termination "ly" (adverb) part of speech part of a man TAYLOR measurer theodolite (Theophilus) fill us FILLMORE more fuel the flame flambeau bow arrow PIERCE hurt (feeling) wound soldier cannon BUCHANAN rebuke official censure (to officiate) wedding linked LINCOLN

link stroll sea shore (the heavy shell) mollusk unfamiliar word dictionary Johnson's JOHNSON son bad son (thievish boy) dishonest boy take give GRANT award shool premium examination cramming (fagging) laborer hay field HAYES hazy clear (vivid) brightly lighted camp fire war field GARFIELD Guiteau murderer prisoner prison fare (half fed) well fed well read author ARTHUR round table tea cup (half full) divide cleave CLEVELAND City of Cleveland two twice

1	2
civil service ward politician (stop em) stop procession (tough boy) Little Ben Harry HARRISON Tippecanoe tariff too knapsack	(back) Mac McKINLEY kill Czolgosz (zees) seize ruffian rough rider rouse ROOSEVELT

It will be noted that some of the date words, as "free will," only give three figures of the date, 845; but it is to be supposed that if the student knows that many figures in the date of Polk's inauguration he can guess the other one.

The curious thing about this system will now become apparent. If the reader has learned the series so that he can say it down, from President to Roosevelt, he can with no effort, and without any further preparation, say it backwards from Roosevelt up to the commencement! There could be no better proof that this is the natural mnemonic system. It proves itself by its works.

The series should be repeated backward and forward every day for a month, and should be supplemented by a series of the reader's own making, and by this one, which gives the numbers from 0 to 100, and which must be chained together before they can be learned.

·		
O—hoes		
0—hoes 1—wheat 2—hen 3—home 4—hair 5—oil 6—shoe 7—hook 8—off 9—bee 10—daisy 11—tooth 12—dine	18 dove 19—tabby 20—hyenas 21—hand 22—nun 23—name 24—owner 25—nail 26—hinge 27—ink 28—knife 29—knob 30—muse	
13—time	[1—mayday	
13—time 14—tower	32—hymen	
16—dell	33—mama 34—mare	
16—ditch 17—duck	35—mill	

36—image	69—ship
87—mug	70—eggs
38—muff	71—gato
39—mob	72—gun
40—race	73—comb
41—hart	74—hawker
42—horn	75—coal
43—army	76—cage
44—warrior	77—cake
45—royal	78—coffee
46—arch	79—cube
47—rock	80—vase
48—wharf	81—feet
49—rope	82—vein
50—wheel s	St-fame
51—lad	84—fire
52—lion	85—vial
53—lamb	&6—fish
54—lair	87—fig
55—lily	E8—fife
56—lodge	{9—fib
57—lake	90—pies
58—leaf	91—putty
59—elbow	92—pane
60—chess	93—bomb
61—cheat	94—bier
62—chain	96—bell
63—sham	96—peach
64—chair	97—book
65—jail	98—beef
66-judge	99—pope
67—jockey	100—diocese
68—shave	

100-diocese.

By the use of this table, which should be committed as thoroughly as the President series, so that it can be repeated backward and forward, any date, figure or number can be at once constructed, and bound by the usual chain to the fact which you wish it to accompany.

When the student wishes to go farther and attack larger problems than the simple binding of two facts together, there is little in Loisette's system that is new, although there is much that is good. If it is a book that is to be learned as one would prepare for an examination. Each chapter is to be considered separately. Of each an epitome is to be written in which the writer must exercise all of his ingenuity to reduce the matter in hand to its final skeleton of fact. This he is to commit to memory both by the use of the chain and the old swstem of interrogation. Suppose after much labor through a wide space of language one boils a chapter or an event down to the final

irreducible sediment: "Magna Charta was exacted by the barons from King John at Runnymede."

You must now turn this statement this way and that way; asking yourself about it every possible and impossible question, gravely considering the answers, and, if you find any part of it especially difficult to remember, chaining it to the question which will bring it out. Thus, "What was exacted by the barons from King John at Runnymede?" "Magna Charta." "By whom was Magna Charta exacted from King John at Runnymede?" "By the barons." "From whom was," etc., etc.? "King John." "From what king," etc., etc.? "King John." "Where was Magna Charta," etc., etc.? "At Runnymede."

And so on and so on, as long as your ingenuity can suggest questions to ask, or points of view from which to consider the statement. Your mind will be finally saturated with the information, and prepared to spill it out at the first squeeze of the examiner. This, however, is not new. It was taught in the schools hundreds of years before Loisette was born. Old newspaper men will recall in connection with it Horace Greeley's statement that the test of a news item was the clear and satisfactory manner in which a report answered the interrogatories, "What?" "When?" "Where?" "Who?" "Why?"

In the same way Loisette advises the learning of poetry, e. g.:

"The Assyrian came down like a wolf on the fold."

"Who came down?"

"How did the Assyrian come down?"

"Like what animal did?" etc.

And so on and so on, until the verses are exhausted of every scrap of information to be had out of them by the most assiduous cross-examination.

Whatever the reader may think of the availability or value of this part of the system, there are so many easily applicable tests of the worth of much that Loisette has done, that it may be taken with the rest.

Few people, to give an easy example, can remember the value of the ratio between the circumference and the diameter of the circle beyond four places of decimals, or at most six-3.141592. Here is the value to 108 decimal places:

3. 14159265.3589793238.4626433832.7950288419.7169399375.1058209749.4459230781.

6406286208.9986280348.2534211706.7982148086 plus.

By a very simple application of the numerical letter values these 108 decimal places can be carried in the mind and recalled about as fast as you can write them down. All that is to be done is to memorize these nonsense lines:

Mother Day will buy any shawl. My love pick up my new muff. A Russian jeer may move a woman.

Cables enough for Utopia.

Get a cheap ham pie by my cooley. The slave knows a bigger ape.

I rarely hop on my sick foot.

Cheer a sage in a fashion safe.

A baby fish now views my wharf.

Annually Mary Ann did kiss a jay.

A cabby found a rough savage.

Now translate each significant into its proper value and you have the task accomplished. "Mother Day," m—3, th—1, r—4. d—1, and so on. Learn the lines one at a time by the method of interrogatories. "Who will buy any shawl?" "Which Mrs. Day will buy a shawl?" "Is Mother Day particular about the sort of shawl she will buy?" "Has she bought a shawl?" etc., etc. Then cement the end of each line to the beginning of the next one, thus, "Shawl"—"warm garment"—"warmth"—"love"—"my love," and go on as before. Stupid as the work may seem to you, you can memorize the figures in fifteen minutes this way so that you will not forget them in fifteen years. Similarly you can take Haydn's Dictionary of Dates and turn fact after fact into nonsense lines like these which you cannot lose.

And this ought to be enough to show anybody the whole art. If you look back across the sands of time and find out that it is that ridiculous old "Thirty days hath September" which comes to you when you are trying to think of the length of October—if you can quote your old prosody,

"O datur ambiguis," etc.,

with much more certainty than you can serve up your Horace; if, in fine, jingles and alliterations, wise and otherwise, have stayed with you, while solid and serviceable information has faded away, you may be certain that here is the key to the enigma of memory.

You can apply it yourself in a hundred ways. If you wish to clinch in your mina the fact that Mr. Love lives at 485 Dearborn Street, what is more easy than to turn 485 into the word "rifle" and chain the ideas together, say thus: "Love—happiness—good time—picnic—forest—wood rangers—range—rifle range—rifle—fine weapon—costly weapon—dearly bought—Dearborn.

Or if you wish to remember Mr Bowman's name and you notice he has a mole on his face which is apt to attract your attention when you next see him, cement the ideas thus: "Mole, mark, target, archer, Bowman."

HOW 'TO RAISE THE BODY OF A DROWNED PERSON.—In a recent failure to recover the body of a drowned person in New Jersey, a French-Canadian undertook the job, and proceeded as follows: Having supplied himself with some glass gallon jars and a quantity of unslaked lime, he went in a boat to the place where the man was seen to go down. Onc of the jars was filled half full of lime, and then filled with water and tightly corked. It was then dropped into the water and soon after exploded at the bottom of the river with a loud report. After the third trial, each time at a different place, the body rose to the surface and was secured.

500 ERRORS CORRECTED.

Concise Rules in Grammar, Spelling and Pronunciation.

HERE are several kinds of errors in speaking. The most objectionable of them all are those in which words are employed that are unsuitable to convey the meaning intended. Thus, a person wishing to express his intention of going to a given place says, "I propose going," when, in fact, he purposes going. The following affords an amusing illustration of this class of error: A venerable matron was speaking of her son, who, she said, was quite stage-struck. "In fact," remarked the old lady, "he is going to a premature performance this evening!" Considering that most amateur performances are premature, it cannot be said that this word was altogether misapplied; though, evidently, the maternal intention was to convey quite another meaning.

Other errors arise from the substitution of sounds similar to the words which should be employed; that is, spurious words instead of genuine ones. Thus, some people say "renumerative," when they mean "remunerative." A nurse, recommending her mistress to have a perambulator for her child, advised

her to purchase a preamputator!

Other errors are occasioned by imperfect knowledge of the English grammar: thus, many people say, "Between you and I," instead of "Between you and me." And there are numerous other departures from the rules of grammar, which will be pointed out hereafter.

MISUSE OF THE ADJECTIVE: "What beautiful butter!" "What a nice landscape!" They should say "What a beautiful landscape!" "What nice butter!" Again, errors are fre-

quently occasioned by the following causes:

MISPRONUNCIATION OF WORDS: Many persons say pronounciation instead of pronunciation; others say pro-nun-ce-a-shun, instead of pro-nun-she-a-shun.

MISDIVISION OF WORDS AND SYLLABLES: This defect makes the words an ambassador sound like a nambassador, or an adder like a nadder.

IMPERFECT ENUNCIATION, as when a person says hebben for

heaven, ebber for ever, jocholate for chocolate.

To correct these errors by a systematic course of study would involve a closer application than most persons could afford, but the simple and concise rules and hints here given, founded upon usage and the authority of scholars, will be of great assistance to inquirers.

31

RULES AND HINTS FOR CORRECT SPEAKING.

Who and whom are used in relation to persons, and which in relation to things But it was once common to say, "the man which." This should now be avoided. It is now usual to say, "Our Father who art in heaven," instead of "which art in heaven."

Whose is, however, sometimes applied to things as well as to persons. We may

therefore say, "The country whose inhabitants are free."

Thou is employed in solemn discourse, and you in common language. Ye (plural) is also used in serious addresses, and you in familiar language.

The uses of the word it are various, and very perplexing to the uneducated. It is not only used to imply persons, but things, and even ideas, and therefore in speaking or writing, its assistance is constantly required. The perplexity respecting this word arises from the fact that in using it in the construction of a long sentence, sufficient care is not taken to insure that when it is employed it really points out or refers to the object intended. For instance, "It was raining when John set out in his cart to go to market, and he was delayed so long that it was over before he arrived." Now what is to be understood by this sentence? Was the rain over? or the market? Either or both might be inferred from the construction of the sentence, which, therefore, should be written thus:—"It was aining when John set out in his cart to go to market, and he was delayed so long that the market was over before he arrived."

Rule.—After writing a sentence always look through it, and see that wherever the word it is employed, it refers to or carries the mind back to the object which it is

Intended to point out.

The general distinction between this and that may be thus defined: this de**aotes** an object present or near, in time or place; that something which is absent.

These refers, in the same manner, to present objects, while those refers to things

Who changes, under certain conditions, into whose and whom; but that and which always remain the same, with the exception of the possessive case, as noted above.

That may be applied to nouns or subjects of all sorts; as, the girl that went to

school, the dog that bit me, the opinion that he entertains.

The misuse of these pronouns gives rise to more errors in speaking and writing than any other cause.

When you wish to distinguish between two or more persons, say, "Which is the happy man?" not who—"Which of those ladies do you admire?"

Instead of "Whom do you think him to be?" say, "Who do you think him to be?"

Whom should I see? To whom do you speak?

Who said so?

Who gave it to you?

Of whom did you procure them?

Who was he?

Who do men say that I am?

Self should never be added to his, their, mine, or thine.

Each is used to denote every individual of a number. Every denotes all the individuals of a number.

Either and or denote an alternative: "I will take either road, at your pleasure," "I will take this or that."

Neither means not either; and nor means not the other.

Either is sometimes used for each—"Two thieves were crucified, on either side

"Let each esteem others as good as the nselves," should be, "Let each esteem others as good as himself."

"There are bodies each of which are so small," should be, "each of which is so

Do not use derble superlatives, such as most straightest, most highest, most finest.

The term worser has gone out of use; but lesser is still retained.

The use of such words as chiefest, extremest, etc., has become obsolete, because they do not give any superior force to the meanings of the primary words, chief, ex-

treme, etc.

Such expressions as more impossible, more indispensable, more universal, more uncontrolable, more unlimited, etc., are objectionable, as they really enfeeble the meaning which it is the object of the speaker or writer to strengthen. For instance, impossible gains no strength by rendering it more impossible. This class of error is common with persons who say, "A great large house," "A great big animal," "A I'lle small foot," "A tiny little hand."

Here, there and where, originally denoting place, may now, by common consent, be used to denote other meanings; such as, "There I agree with you," "Where we differ," "We find pain where we expected pleasure," "Here you mistake me."

Hence, whence and thence, denoting departure, etc., may be used without the word from. The idea of from is included in the word whence—therefore it is unnecessary to say "From whence."

Hither, thither, and whither, denoting to a place, have generally been superseded by here, there, and where. But there is no good reason why they should not be employed. If, however, they are used, it is unnecessary to add the word to, because that is implied—"Whither are you going?" "Where are you going?" Each of these sentences is complete. To say, "Where are you going to?" is redundant.

Two negatives destroy each other, and produce an affirmative. "Nor did he

not observe them," conveys the idea that he did observe them.

But negative assertions are allowable. "His manners are not impolite," which

implies that his manners are in some degree marked by politeness.
Instead of "Let you and I," say "Let you and me."
Instead of "I am not so tall as him," say "I am not so tall as he."
When asked "Who is there?" do not answer "Me," but "I."

Instead of "For you and I," say "For you and me."
Instead of "Says I," say, "I said."
Instead of "You are taller than me," say "You are taller than I."
Instead of "I ain't," or "I arn't," say "I am not."

Instead of "Whether I be present or no, say "Whether I be present or not."

For "Not that I know on, say "Not that I know." Instead of "Was I to do so," say "Were I to do so."

Instead of "I would do the same if I was him," say "I would do the same if I were he."

Instead of "I had as lief go myself," say "I would as soon go myself," or "I would rather."

It is better to say "Six weeks ago," than "Six weeks back." It is better to say "Since which time," than "Since when." It is better to say "I repeated it," than "I said so over again."

Instead of "He was too young to have suffered much," say "He was too young to suffer much."

Instead of "Less friends," say "Fewer friends." Less refers to quantity.

Instead of "A quantity of people," say "A number of people." Instead of "Ile and they we know," say "Him and them. Instead of "As far as I can see," say "So far as I can see." Instead of "A new pair of gloves, say "A pair of new gloves."

Instead of "I hope you'll think nothing on it," say "I hope you'll think nothing of it."

Instead of "Restore it back to me," say "Restore it to me."

Instead of "I suspect the veracity of his story," say "I doubt the truth of his

Instead of "I seldom or ever see him," say "I seldom see him."

Instead of "I expected to have found him," say "I expected to find him." Instead of "Who learns you music?" say "Who teaches you music?"

Instead of "I never sing whenever I can help it," say "I never sing when I can

help it." Instead of "Before I do that I must first ask leave," say "Before I do that I must ask leave." 33

Instead of saying "The observation of the rule," say "The observance of the rule."

Instead of "A man of eighty years of age," say "A man eighty years old."

Instead of "Here lays his honored head," say "Here lies his honored head." Instead of "He died from negligence," say "He died through neglect," or "in consequence of neglect."

Instead of "Apples are plenty," say "Apples are plentiful."
Instead of "The latter end of the year," say "The end, or the close, of the year."
Instead of "The then government," say "The government of that age, or century, or year, or time."

Instead of "A couple of chairs," say "Two chairs."

Instead of "They are united together in the bonds of matrimony," say "They are united in matrimony," or "They are married."

Instead of "We travel slow," say "We travel slowly."

Instead of "He plunged down into the river," say "He plunged into the river." Instead of "He jumped from off of the scaffolding," say "He jumped off the scaffolding."

Instead of "He came the last of all," say "He came the last."

Instead of "universal," with reference to things that have any limit, say "general;" "generally approved," instead of "universally approved;" "generally beloved," instead of "universally beloved."

Instead of "They ruined one another," say "They ruined each other."

Instead of "If in case I succeed," say "If I succeed."

Instead of "A large enough room," say "A room large enough."

Instead of "I am slight in comparison to you," say "I am slight in comparison with you."

Instead of "I went for to see him," say "I went to see him."
Instead of "The cake is all eat up," say "The cake is all eaten"

Instead of "Handsome is as handsome does," say "Handsome is who handsome does."

Instead of "The book fell on the floor," say "The book fell to the floor."

Instead of "His opinions are approved of by all," say "His opinions are approved

Instead of "I will add one more argument," say "I will add one argument more," or "another argument."

Instead of "A sad curse is war," say "War is a sad curse."

Instead of "He stands six foot high," say "He measures six feet," or "His heightis six feet."

Instead of "I go every now and then," say "I go sometimes (or often)."

Instead of "Who finds him in clothes," say "Vho provides him with clothes."

Say "The first two," and the last two," instead of "the two first," "the two last." Instead of "His health was drank with enthusiasm," say "His health was drunk enthusiastically."

Instead of "Except I am prevented," say "Unless I am prevented." Instead of "In its primary sense," say "In its primitive sense." Instead of "It grieves me to see you," say "I am grieved to see you." Instead of "Give me them papers," say "Give me those papers."

Instead of "Those papers I hold in my hand," say "These papers I hold in my hand."

Instead of "I could scarcely imagine but what," say "I could scarcely imagine

Instead of "He was a man notorious for his benevolence," say "He was noted for his benevolence."

Instead of "She was a woman celebrated for her crimes," say "She was notorious on account of her crimes."

Instead of "What may your name be?" say "What is your name?"

Instead of "I lifted it up," say "I lifted it."

Instead of "It is equally of the same value," say "It is of the same value," or "equal value."

Instead of "I knew it previous to your telling me," say "I knew it previously to your telling mc."

Instead of "You was out when I called," say "You were out when I called."

Instead of "I thought I should have won this game," say "I thought I should win this game."

Instead of "This much is certain," say "Thus much is certain," or, "So much is

certain."

Instead of "He went away as it may be yesterday week," say "He went away yesterday week."

Instead of "He came the Saturday as it may be before the Monday," specify the

Monday on which he came.

Instead of "Put your watch into your pocket," say "Put your watch into your pocket."

Instead of "He has got riches," say "He has riches."
Instead of "Will you set down?" say "Will you sit down?"

Instead of "No thankee," say "No, thank you."

Instead of "I cannot do it without farther means," say "I cannot do it without further means."

Instead of "No sooner but," or "No other but," say "than." Instead of "Nobody else but her," say "Nobody but her."

Instead of "He fell down from the balloon," say "He fell from the balloon." Instead of "He rose up from the ground," say "He rose from the ground."

Instead of " These kind of oranges are not good," say "This kind of oranges is

Instead of "Somehow or another," say "Somehow or other."

Instead of " Will I give you some more tea?" say "Shall I give you some more tea?"

Instead of "Oh dear, what will I do?" say "Oh dear, what shall I do?" Instead of "I think indifferent of it," say "I think indifferently of it."

Instead of "I will send it conformable to your orders," say "I will send it con-

formably to your orders."

Instead of "To be given away gratis," say "To be given away."

Instead of "Will you enter in?" say "Will you enter?"

Instead of "This three days or more," say "These three days or more." Instead of "He is a had grammarian," say "He is not a grammarian." Instead of "We accuse him for," say "We accuse him of."

Instead of "We acquit him from," say "We acquit him of."

Instead of "We acquit him from," say "We acquit him of."
Instead of "I am averse from that," say "I am averse to that."
Instead of "I confide on you," say "I confide in you."
Instead of "As soon as ever," say "As soon as."
Instead of "The very best," or "The very worst," say "The best or the worst."
Avoid such phrases as "No great shakes," "Nothing to boast of," "Down in my boots," "Suffering from the blues." All such some indicate vulgarity.
Instead of "No one hasn't called," say "No one has called."
Instead of "You have a right to pay me" say "It is right that you should pay

Instead of "You have a right to pay me," say "It is right that you should pay

Instead of "I am going over the bridge," say "I am going across the bridge." Instead of "I should just think I could," say "I think I can."

Instead of "There has been a good deal," say "There has been much."

Instead of saying "The effort you are making for meeting the bill," say "The effort you are making to meet the bill."

To say "Do not give him no more of your money," is equivalent to saying "Give him some of your money." Say "Do not give him any of your money." Instead of saying "They are not what nature designed them," say "They are are not what nature designed them to be."

Instead of saying "I had not the pleasure of hearing his sentiments when I wrote

that letter," say "I had not the pleasure of having heard," etc.
Instead of 'The quality of the apples were good," say "The quality of the apples was good."

Instead of "The want of learning, courage and energy are more visible," say, "Is more visible."

Instead of "We die for want," say "We die of want." Instead of "He died by fever," say "He died of fever."

Instead of "I enjoy bad health," say "My health is not good." Instead of "Either of the three," say "Any one of the three." Instead of "Better nor that," say "Better than that."

Instead of "We often think on you," say "We often think of you." Instead of "Mine is so good as yours," say "Mine is as good as yours."

Instead of "This town is not as large as we thought," say "This town is not so large as we thought."

Instead of "Because why?" say "Why?" Instead of "That there boy," say "That boy."

Instead of "That horse is not much worth," say "The horse is not worth much." Instead of "The subject-matter of debate," say "The subject of debate." Instead of saying "When he was come back," say "When he had come back." Instead of saying "His health has been shook," say "His health has been shaken."

Instead of "It was spoke in my presence," say "It was spoken in my presence."
Instead of "Very right," or "Very wrong," say "Right," or "Wrong."
Instead of "The mortgageor paid him the money," say "The mortgagee paid him the mortgagee lends; the mortgageor borrows.

Instead of "I took you to be another person," say "I mistook you for another per-

son."

Instead of "On either side of the river," say "On each side of the river."

Instead of "There's fifty," say "There are fifty."
Instead of "The best of the two," say "The better of the two."

Instead of "My clothes have become too small for me," say "I have grown too stout for my clothes."

Instead of "Two spoonsful of physic," say "Two spoonfuls of physic."

Instead of "She said, says she," say "She said."
Avoid such phrases as "I said, says I," "Thinks I to myself," etc.

Instead of "I don't think so," say "I think not."

Instead of "He was in eminent danger," say "He was in imminent danger." Instead of "The weather is hot," say "The weather is very warm." Instead of "I sweat," say "I perspire."

Instead of "I only want two dollars," say "I want only two dollars." Instead of "Whatsomever," say "Whatever," or "Whatsoever."

Avoid such exclamations as "God bless me!" "God deliver me!" "By God!" "By Gosh!" "My Lord!" "Upon my soul," etc., which are vulgar on the one hand, and savor of impiety on the other, for—"Thou shalt not take the name of the Lord thy God in vain.'

PRONUNCIATION.

Accent is a particular stress or force of the voice upon certain syllables or words. This mark 'in printing denotes the syllable upon which the stress or force of the

voice should be placed.

A word may have more than one accent. Take as an instance aspiration. In uttering this word we give a marked emphasis of the voice upon the first and third syllables, and therefore those syllables are said to be accented. The first of these accents is less distinguishable than the second, upon which we dwell longer, therefore the second accent in point of order is called the primary, or chief accent of the

When the full accent falls on a vowel, that vowel should have a long sound, as in vo'cal; but when it falls on or after a consonant, the preceding vowel has a short

sound, as in hab'it.

To obtain a good knowledge or pronunciatio.., it is advisable for the reader to listen to the examples given by good speakers, and by educated persons. We learn the pronunciation of words, to a great extent, by *imitation*, just as birds acquire the notes of other birds which may be near them.

But it will be very important to bear in mind that there are many words having a double meaning or application, and that the difference of meaning is indicated by the difference of the accent. Among these words, nouns are distinguished from

verbs by this means: nouns are mostly accented on the first syllable, and verbs on

Noun signifies name; nouns are the names of persons and things, as well as of things not material and palpable, but of which we have a conception and knowledge, such as courage, firmness, goodness, strength; and verbs express actions, movements, &c. If the word used signifies that anything has been done, or is being done, or is, or is to be done, then that word is a verb.

Thus when we say that anything is "an in'sult," that word is a noun, and is accented on the first syllable; but when we say he did it "to insult another person," the word insult' implies acting, and becomes a verb, and should be accented on the

last syllable.

A list of nearly all the words that are liable to similar variation is given here. It will be noticed that those in the first column, having the accent on the first syllable, are mostly nouns; and that those in the second column, which have the accent on ti.e second and final syllable, are mostly verbs:-

Noun, &c. Ab'ject Ab'sent Ab'stract Ac'cent Af'fix As'pect At'tribute Aug'ment Au'gast Bom'bard Col'league Col'lect Com'ment Com'pact Com'plot Com'port	Verb, &c. abject' absent' abstract' accent' affix' aspect' attrib'ute august' bombard' colleague' colleague' compact' compact' comport'	Noun, &c. Con'trast Con'verse Con'vert Con'vict Con'voy De'crease Des'cant Des'ert De'tail Di'gest Dis'cord Dis'count Ef'flux Es'cort Es'say Ex'ile	Verb, &c. contrast' converse' convert' convoy' decrease' descant' desert' detail' digest' discount' efflux' escort' essay' exile'	Noun, &c. In'lay In'sult Ob'ject Out'leap Per'fect Per'fume Per'mit Pre'fix Prem'ise Pres'age Pros'ent Prod'uce Proj'ect Pro'test Reb'el Rec'ord	Verb, &c. inlay insult' object' outleap' perfect' perfume permit' prefix' premise' presage' present' produce' project' rebel' record'
Com'pound Com'press Con'cert	compound' compress' concert'	Ex'port Ex'tract Fer'ment	export' extract' ferment'	Ref'use Re'tail Sub'ject	refuse' retail' subject'
Con'crete Con'duct Con'fine Con'flict Con'serve Con'sort Con'test Con'text	concrete' conduct' confine' conflict' conserve' consort' contest'	Fore'cast Fore'taste Fre'quent Im'part Im'port Im'press Im'print In'cense	forecast' foretaste' frequent' impart' import' impress' imprint' incense'	Su'pine Sur'vey Tor'ment Traj'ect Trans'fer Trans'port Un'dress Up'cast	supine' survey' torment' traject' transfer' transport' undress' upcast'
Con'tract	contract'	In'crease	increase'	Up'start	upsta _i t'

Cement' is an exception to the above rule, and should always be accented on the last syllable. So also the word consols'.

RULES OF PRONUNCIATION.

C before a, o, and u, and in some other situations, is a close articulation, like k. Before e, i, and y, c is precisely equivalent to s in same, this; as in cedar, civil, cypress, capacity.

E final indicates that the preceding vowel is long; as in hate, mete, sire, robe,

lyre, abate, recede, invite, remote, intrude.

E final indicates that c preceding has the sound of s; as in lace, lance; and that g preceding has the sound of j, as in charge, page, challenge.

E final in proper English words, never forms a syllable, and in the most used words, in the terminating unaccented syllable it is silent. Thus, motive, genuine, examine, granite, are pronounced motiv, genuin, examin, granit.

E final, in a few words of foreign origin, forms a syllable; as syncope, simile,

E final is silent after I in the following terminations,—ble, cle, dle, fle, gle, kle, ple, tte, zle; as in able, manacle, cradle, ruffle, mangle, wrinkle, supple, rattle, puzzle, which are pronounced ab'l, mana'cl, cra'dl, ruf'fl, man'gl, wrin'kl, sup'pl, puz'zl.

E is usually silent in the termination en : as in token, broken : pronounced tokn,

OUS, in the termination of adjectives and their derivatives, is pronounced us; as

in gracious, pious, pompously.

CE, CI, TI, before a vowel, have the sound of sh; as in cetaceous, gracious, mo-. tion, partial, ingratiate; pronounced cetashus, grashus, moshun, parshal, ingrashiate.

SI, after an accented vowel, is pronounced like zh; as in Ephesian, confusion;

pronounced Ephezhan, confuzhon.

GH, both in the middle and at the end of words is silent; as in caught, bought, fright, nigh, sigh; pronounced caut, baut, frite, ni, si. In the following exceptions, however, gh are pronounced as f:=cough, chough, clough, enough, laugh, rough, slough, trough.

When WH begins a word, the aspirate h precedes w in pronunciation: as in substantial while substantial property having precisely the sound.

what, whiff, whale; pronounced hwat, hwiff, hwale, w having precisely the sound of oo, French ou. In the following words is silent:—who, whom, whose, whoop,

whole.

H after r has no sound or use; as in rheum, rhyme; pronounced reum, ryme. H should be sounded in the middle of words; as in forehead, abhor, behold, exhaust, inhabit, unhorse.

H should always be sounded except in the following words:—heir, herb, honest, ponor, hour, humor, and humble, and all their derivatives, - such as humorously.

herived from humor. K and G are silent before n; as know, gnaw; pronounced no, naw. W before r is silent; as in wring, wreath; pronounced ring, reath.

B after m is silent; as in dumb, numb; pronounced dum, num.

L before k is silent as in balk, walk, talk; pronounced bank, wank, tank.

PH has the sound of f: as in philosophy; pronounced filosofy. NG has two sounds, one as in singer, the other as in fin-ger.

N after m, and closing a syllable, is silent; as in hymn, condemn.

P before s and t is mute; as in psalm, pseudo, ptarmigan; pronounced sarm,

sudo, tarmigan.

R has two sounds, one strong and vibrating, as at the beginning of words and syllables, such as robber, reckon, error; the other is at the terminations of the words, or

when succeeded by a consonant, as farmer, morn.

There are other rules of pronunciation affecting the combinations of vowels, etc.; but as they are more difficult to describe, and as they do not relate to errors which are commonly prevalent, it will suffice to give examples of them in the following list of words. When a syllable in any word in this list is printed in italics, accent or stress of voice should be laid on that syllable.

WORDS OFTEN MISPRONOUNCED.

Again, usually pronounced a-gen, not as | spelled.

Alien, ale-yen, not a-li-en. Antipodes, an-tip-o-dees.

Apostle, as a-pos'l, without the t.

Arch, artch in compounds of our own Awkward, awk-wurd, not awk-urd. language, as in archbishop, archduke; Bade, bad. but ark in words derived from the Because, be-caus, not be-cos. Greek, as archaic, ar-ka-ik; archæolo-Been, bin.

copal, ar-ke-e-pis-co-pal; archipelago, ar-ke-pel-a-go; ar-chives, ar-kivz, etc Asia, a-shia.

Asparagus as spe led, not asparagrass.

Aunt, ant, not awnt.

gy, ar-ke-ol-o-gy; archangel, ark-ain- Beloved, as a verb, be-luvd; as an adgel; archetype, ar-ke-type; archiepis- jective, be-luv-ed. Blessed, cursed

etc., are subject to the same rule. Beneath, with the th in breath, not with the th in breathe.

Biog'raphy, as spelled, not beography.

Caprice, capreece.

Catch, as spelled, not ketch.

Chaos, ka-oss.

Charlatan, shar-latan.

Chasm, kazm. Chasten, chasn.

Chivalry, shiv-alry. Chemistry, kem'-is-try.

Choir, kwire. Combat, kom-bat.

Conduit, kun-dit. Corps, kor: the plural corps is pronounced korz.

Covetous, cuv-e-tus, not cuv-e-chus.

Courteous curt-yus.

Courtesy (politeness), cur-te-sey.

Courtesy (a lowering of the body), curt-

Cresses, as spelled, not cree-ses. Cu'riosity, cu-re-os-e-ty, not curosity. Cushion, coosh-un, not coosh-in. Daunt, dawnt, not dant or darnt.

Design and desist have the sound of s, not of z.

Desire should have the sound of z. Dew, due, not doo.

Diamond, as spelled, not di-mond. Diploma, de-plo-ma, not dip-lo-ma.

Diplomacy, de-plo-ma-cy, not dip-lo-macy.

Divers (several), di-verz; but diverse (different), di-verse.

Drought, drowt, not drawt.

Duke, as spelled, not dook.

Dynasty, dy-nas-ty, not dyn-as-te.

Edict, e-dickt, not ed-ickt. E'en, and e'er, een and air.

Egotism, e-go-tism, not eg-o-tism.

Either, e-thcr.

Engine, en-jin, not in-jin. Epistle, without the t.

Epitome, e-pit-o-me.

Epoch, ep-ock, not e-pock.

Equinox, e-qui-nox, not eq-kwe-nox.

Europe, U-rup, not U-rope. Euro-pe-an, not Eu-ro-pean. Every, ev-er-y, not ev-ry.

Executor, egz-ec-utor, not with the sound

Extraordinary, ex-tror-di-ner-i, not extraordinary, nor extrornary.

February, as spelled, not Febuary. Finance, fe-nance, not finance.

Foundling, as spelled, not fond-ling. Garden, gar-dn, not gar-den, nor gard-

Gauntlet, gawnt-let, net gant-let.

Geography, as spelled, not jography, or gchography.

Geometry, as spelled, not jom-etry.

Haunt, hawnt, not hant. Height, hite, not highth.

Heinous, hay-nus, not hee-nus. Horizon, ho-ri-zn, not hor-i-zon.

Hymeneal, hy-men-e-al, not hy-menal.

Instead, in-sted, not instid.

Isolate, i-so-late, not iz-olate, nor is-

Jalap, jal-ap, not jolup.

January, as spelled, not Jenuary nor Janewary.

Leave, as spelled, not leaf.

Legend, lej-end, or le-gend. Many, meniney, not man-ny.

Marchioness, mar-shun-ess, not as spelled.

Massacre, mas-sa-ker.

Mattress, as spelled, not mat-trass.

Matron, ma-trun, not mat-ron. Mcdicinc, med-e-cin, not med-cin.

Minute (sixty seconds), min-it. Minute (small), mi-nute.

Mischievous, mis-chiv-us, not mis-cheev-

Nc'er, for never, nare. New, nu, not noo.

Oblige, as spelled, not obleege. Oblique, ob-*leek*, or o-blike. Odorous, o-der-us, not od-ur-us.

Of, ov, except when compounded with there, here and where, which should be pronounced here-of, there-of, and

where-of.

Off, as spelt, not awf. Organization, or-gan-i-za-shun. Ostrich, os-trich, not os-tridge. Pageant, paj-ent, not pa-jant.

Parent, pare-ent, not par-ent.

Partisan, par-te-zan, not par-te-zan, nor par-ti-zan.

Physiognomy, as fiz-i-og-nomy, not physionnomy.

Pincers, pin-cerz, not pinch-erz. Plaintiff, as spelled, not plantiff.

Precedent (an example), pres-e-dent; prece-dent (going before in point of time, previous, former) is the pronunciation of the adjective.

Prologue, pro-log, not prol-og. Radish, as spelled, not red-ish.

Raillery, rail'-er-y, or ral-er-y, not as spelled.

Rather, ra-ther, not ray-ther.

Resort, re-zort.

Resound, re-zound.

Respite, res-pit, not as spelled.

Rout (a party; and to rout) should be pronounced rowt. Route (a road), root of rowt.

Saunter, sawn-ter, not sarn-ter or san-ter. | Than, as spelled, not thun. Sausage, saw-sage, not sos-sidge, sas-

Schedule, sked-ule, not shed-ule.

Seamstress is pronounced seem-stress, but semp-stress, as the word is sometimes spelt, in pronounced sem-stress.

Shire, as spelled, when uttered as a single word, but shortened into shir in compo-

sition.

Shone, shon, not shun, nor as spelled. Soldier, sole-jer.

Solecism, sol-e-cizm, not so-le-cizm.

Soot, as spelled, not sut.

Sovereign, sov-er-in, or suv-er-in.

Specious, spe-shus, not spesh-us. Stomacher, stum-a-cher.

Stone (weight), as spelled, not stun.

Synod, sin-od, not sy-nod. Tenure, ten-ure, not te-nure.

Tenet, ten-et, not te-net.

Tremor, trem-ur, not tre-mor. Twelfth should have the th sounded. Umbrella, as spelled, not um-ber-el-la. Vase, vaiz or vahz, not vawze.

Was, woz, not wuz. Weary, weer-i, not wary.

Were, wer, not ware.

Wrath, rawth, not rath: as an adjective it is spelled wroth, and pronounced with the vowel sound shorter, as in wrathful, etc.

Yacht, yot, not yat.

Zenith, zen-ith, not ze-nith.

Zodiac, zo-de-ak.

Zoology should have both d's sounded, as 20-ol-o-gy, not 200-lo-gy.

Note.—The tendency of all good clocutionists is to pronounce as nearly in accordance with the spelling as possible.

Pronounce—

—ace, not iss, as furnace, not furniss.

-age, not idge, as cabbage, courage, postage, village.

-ain, ane, not in, as certain, certane, not certin.

- —ate, not it, as moderate, not moderit.
- -ect, not ec, as aspect, not aspec; subject, not subjec. -ed, not id, or ud, as wicked, not wickid, or wickud.

-el, not l, model, not modl; novel, not novl.

—en, not n, as sudden, not suddn.—Burden, burthen, garden, lengthen, seven, strengthen, often, and a few others, have the e silent.

-ence, not unce, as influence, not influ-unce.

-es, not is, as pleases, not pleasis.

-ile should be pronounced il, as fertil, not fertile, in all words except chamomile (cam), exile, gentile, infantile, reconcile, and senile, which should be pronounced ile.

-in, not n, as Latin, not Latn.

-nd, not n, as husband, not husban; thousand, not thousan.

-ness, not niss, as carefulness, not carefulniss.

-ng, not n, as singing, not singin; speaking, not speakin.

-ngth, not nth, as strength not strenth.

-son, the o should be silent; as in treason, tre-zn, not tre-son.

-tal, not tle, as capital, not capitle; metal, not mettle; mortal, not mort e; periodical, not periodicte.

-xt, not x, as next, not nex.

WHAT'S IN A NAME?

An Englishman whose name was Wemyss Went crazy at last, so it semyss, Because the people would not Understand that they ought To call him not Weemis, but Weems.

Another whose last name was Knollys Tried vainly to vote at the pollys; But no ballot he cast Because to the last The clerk couldn't call Knolliss Noles.

And then a young butcher named Belvoir Went and murdered a man with a clevoir Because the man couldn't,
Or possibly wouldn't,
Pronounce his name properly Beever.

There was an athlete named Strachan Who had plenty of sinew and brachan, And he'd knock a man down With an indignant frown

If he failed to pronounce his name Strawn.

SHORT RULES FOR SPELLING.

Words ending in e drop that letter on taking a suffix beginning with a vowel. Exceptions—words ending in ge, ce, or oe.

Final e of a primitive word is retained on taking a suffix beginning with a conso-

nant. Exceptions-words ending in dge, and truly, duly, etc.

Final y of a primitive word, when preceded by a consonant, is generally changed into 1 on the addition of a suffix. Exceptions—retained before ing and ish, as pitying. Words ending in ie and dropping the e by Rule 1, change the 1 to y, as lying. Final y is sometimes changed to e, as duteous.

Nouns ending in y, preceded by a vowel, form their plural by adding s; as money, moneys. Y preceded by a consonant is changed to les in the plural; as

bounty, bounties.

Final y of a primitive word, preceded by a vowel, should not be changed into 1

before a suffix; as, joyless.

In words containing el or le, el ls used after the sound of s; as ceiling, seize, except in siege and a few words ending in cier. Inveigle, neither, leisure and weird also have el. In other cases it is used, as in believe, achieve.

Words ending in ceous or clous, when relating to matter, end in ceous; all

others in cious.

Words of one syllable, ending in a consonant, with a single vowel before it, double the consonants in derivatives; as, ship, shipping, etc. But if ending in a consonant with a double vowel before it, they do not double the consonant in derivatives; as troop, trooper, etc.

Words of more than one syllable, ending in a consonant preceded by a single vowel, and accented on the last syllable, double that consonant in derivatives; as

commit, committed; but except chagrin, chagrined.

All words of one syllable ending in I, with a single vowel before it, have II at the

close; as mill, sell.

All words of one syllable ending in I, with a double vowel before it, have only one

lat the close; as mail, sail.

The words toretell, distill, instill and fulfill, retain the double 11 of their primitives. Derivatives of dull, skill, will and full also retain the double 11 when the accentfalls on these words; as dullness, skillful, willful, fullness.

PUNCTUATION.

A period (.) after every declarative and every imperative sentence; as, It is true. Do right.

A period after every abbreviation; as, Dr., Mr., Capt.

An interrogation point (?) after every question.

The exclamation point (l) after exclamations; as, Alas! Oh, how lovely l Quotation marks ("") enclose quoted expressions; as, Socrates said: "I believe the soul is immortal."

A colon (:) is used between parts of a sentence that are subdivided by semi-

colons.

A colon is used before a quotation, enumeration, or observation, that is intro-

PUNCTUATION.

duced by as follows, the following, or any similar expression; as, Send me the following: 10 doz. "Armstrong's Treasury," 25 Schulte's Manual, etc.

A semicolon (;) between parts that are subdivided by commas.

The semicolon is used also between clauses or members that are disconnected in sense; as, Man grows old; he passes away; all is uncertain. When as, namely, that is, is used to introduce an example or enumeration, a semicolon is put before it and a comma after it; as, The night was cold; that is, for the time of year.

A comma (,) is used to set off co-ordinate clauses, and subordinate clauses not restrictive; as, Good deeds are never lost, though sometimes forgotten.

A comma is used to set off transposed phrases and clauses; as, "When the wicked entice thee, consent thou not."

A comma is used to set off interposed words, phrases and clauses; as, Let us, it

we can, make others happy.

A comma is used between similar or repeated words or phrases; as, The sky, the water, the trees, were illumined with sunlight.

A comma is used to mark an ellipsis, or the omission of a verb or other important

word.

A comma is used to set off a short quotation informally introduced; as, Who said, "The good die young"?

A comma is used whenever necessary to prevent ambiguity.

The marks of parenthesis () are used to enclose an interpolation where such interpolation is by the writer or speaker of the sentence in which it occurs. Interpolations by an editor or by anyone other than the author of the sentence should be inclosed in brackets, [].

Dashes (—) may be used to set off a parenthetical expression, also to denote an

interruption or a sudden change of thought or a significant pause.

THE USE OF CAPITALS.

z. Every entire sentence should begin with a capital.

Proper names, and adjectives derived from these, should begin with a capital.
 All appellations of the Deity should begin with a capital.
 Official and honorary titles begin with a capital.

5. Every line of poetry should begin with a capital.

6. Titles of books and the heads of their chapters and divisions are printed in capitals.

7. The pronoun i, and the exclamation, O, are always capitals.8. The days of the week, and the months of the year, begin with capitals.

9. Every quotation should begin with a capital letter. ro. Names of religious denominations begin with capitals.

II. In preparing accounts, each item should begin with a capital. 12. Any word of special importance may begin with a capital.

HOW TO WRITE A LETTER.

A business letter should be written clearly, explicitly, and concisely.

Figures should be written out, except dates; sums of money should be both in writing and figures.

Copies should be kept of all business letters.

When you receive a letter containing money it should be immediately counted and the amount marked on the top margin.

Letters to a stranger about one's own personal affairs, requesting answer. should always inclose a stamp.

Short sentences are preferable to long ones.

Letters requiring an answer should have prompt attention.

Never write a letter while under excitement or when in an unpleasant humor.

Never write an anonymous letter.

Do not fill your letter with repetitions and apologies.

HOW TO WRITE A LETTER.

Avoid writing with a pencil. Use black ink. Blue or violet may be used, but

In acknowledging receipt of a letter always mention date.

Paper. Note, packet or letter size should be used. It is unbusiness-like and

very poor taste to use foolscap or mere scraps.

Paging. If single sheets are used they should be carefully paged. Business letters should be written on but one side of the sheet.

Folding. A letter sheet should be folded from bottom upward. Bring lower edge near the top so as to make the length a trifle shorter than the envelope, then fold twice the other way. The folded sheet should be just slightly smaller than the envelope.

If note sheet, fold twice from bottom upward. If envelope is nearly square, single

fold of note sheet is sufficient.

Envelopes, like the paper, should be white, and of corresponding size and quality. It is poor taste to use colored paper, or anything but black ink.

The postage stamp should be placed at the upper right hand corner.

Address. This should be so plainly written that no possible mistake could be made either in name or address. It is unnecessary to add the letters P. O. after the name of the place. When the letter reaches the town it is not likely to go to the court-house or jail. Letters of introduction should bear upon envelope the name and address of the person to whom sent, also the words in the lower left hand corner, "Introducing Mr. —."

Luminous Paint.—This useful paint may, it is said, be made by the following simple method: Take oyster shells and clean them with warm water; put them into the fire for half an hour; at the end of that time take them out and let them cool. When quite cool pound them fine and take away any gray parts, as they are of no use. Put the powder in a crucible in alternate layers with flour and sulphur. Put on the lid and cement with sand made into a stiff paste with beer. When dry, put over the fire and bake for an hour. Wait until quite cold before opening the lid. The product ought to be white. You must separate all gray parts, as they are not luminous. Make a sifter in the following manner: Take a pot, put a piece of very fine muslin very losely across it, tie around with a string, put the powder into the top, and rake about until only the coarse powder remains; open the pot and you will find a very small powder; mix it into a thin paint with gum water, as two thin applications are better than one thick one. This will give a paint that will remain luminous far into the night, provided it is exposed to light during the day.

TRANSFERRING ENGRAVINGS.—It is said that engravings may be transferred on white paper as follows: Place the engraving a few seconds over the vapor of iodine. Dip a slip of white paper in a weak solution of starch, and when dry, in a weak solution of oil of vitriol. When again dry, lay a slip upon the engraving and place both for a few minutes under a press. The engraving will be reproduced in all its delicacy and finish. Lithographs and printed matter cannot be so transferred with equal success.

A Dictionary of 12,000 Words of Similar and Contrary Meaning.

often desirable to have at hand a Dictionary of Synonyms. Take President Cleveland's famous phrase, "innocuous desuetude." If he had said simply, "harmless disuse," it would have sounded clumsy, whereas the words he used expressed the exact shade of meaning, besides giving the world a new phrase and the newspapers something to talk about.

The following list of Synonyms, while not exhaustive, is quite comprehensive, and by cross-reference will answer most requirements. The appended Antonyms, or words of opposite meaning, enclosed in parentheses, will also be found extremely valuable, for one of the strongest figures of speech is *antithesis*, or

contrast:

ABANDON, leave, forsake, desert, renounce, relinquish, quit, forego, let go, waive. (Keep, cherish.) Abandoned, deserted, forsaken, wicked, reprobate, dissolute, profligate, flagitious, corrupt, depraved, vicious. (Cared for, virtuous) Abandonment, leaving, desertion, derliction, renunciation, defection, Abasement, degradation, fall, degeneracy, humiliation, abjection, debasement, servility. (Honor.) Abash, bewilder, disconcert, discompose, confound, confuse, shame. (Embolden.) Abbreviate, shorten, abridge, condense, contract, curtail, reduce. (Extend.) Abdicate, give up, resign, renounce, abandon, forsake, relinquish, quit, forego. Abet, help, encourage, instigate, incite, stimulate, aid, assist. (Resist.) Abettor, assistant, accessory, accomplice, promoter, instigator, particeps criminis, coadjutor, associate, companion, co-operator. (Opponent.) Abhor, dislike intensely, vicw with horror, hate, detest, abominate, loathe, nauseate. (Love.) Ability, capability, talent, faculty, capacity, qualification, aptitude, aptness, expertness, skill, efficiency, accomplishment, attainment. (Incompetency.) Abject, grovelling, low, mean, base, ignoble, worthless, despicable, vile, servile, contemptible. (Noble.) Abjure, recant, forswear, disclaim, recall, revoke, retract, renounce. (Maintain.) Able, strong, powerful, muscular, stalwart, vigorous, athletic, robust, brawny, skillful, adroit, competent, efficient, capable, clever, self-qualified, telling, fitted. (Weak.) Abode, residence, habitation, dwelling, domicile, home, quarters, lodging. Abolish, quash, destroy, revoke, abrogate, annul, cancel, annihilate, extinguish, vitiate, invalidate, nullify. (Establish, enforce.) Abominable, hateful, detestable, odious, vile, execrable (Lovable.) Abortive, fruitless, ineffectual, idle, inoperative, vain, futile. (Effectual.) About, concerning, regarding, relative to, with regard to, as to, respecting, vith respect to, referring to, around, nearly, approximately. Abscond, run off, steal away, decamp, bolt. Absent, a., inattentive,

preciate, ill-use. (Praise, protect.) Abuse, n., scurrility, ribaldry, contumely, obloquy, opprobrium, foul, invective, vituperation, ill-usage. (Praise, protection.) Accede, assent to, consent, acquiesce, comply with, agree, coincide, concur, approve. (Protest.) Accelerate, hasten, hurry, expedite, forward, quicken, despatch. (Retard.) Accept, receive, take, admit. (Refuse.) Acceptable, agreeable, pleasing, pleasurable, gratifying, welcome. (Special Control of the con casualty, incident, contingency, adventure, chance. Accommodate, serve, oblige, adapt, adjust, fit, suit. (Disoblige, impede.) Accomplice, confederate, accessory, abettor, coadjutor, assistant, ally, associate, particeps criminis. (Adversary.) Accomplish, do, effect, finish, execute, achieve, complete, perfect, consummate. (Fail.) Accomplishment, attainment, qualification, acquirement. (Defect.) Accord, grant, allow, admit, concede. (Deny.) Accost, salute, address, speak to, stop, greet. Account, narrative, description, narration, relation, detail, recital, moneys, reckoning, bill, charge. Accountable, punishable, answerable, amenable, responsible, liable. Accumulate, bring together, amass, collect, gather. (Scatter, dissipate.) Accumulation, collection, store, mass collect, gather. (Scatter, dissipate.) Accumulation, collection, store, mass, congeries, concentration. Accurate, correct, exact, precise, nice, truthful. (Erroneous, careless.) Achieve, do, accomplish, effect, fulfill, execute, gain, win. Achievement, feat, exploit, accomplishment, attainment, performance, acquire-Achievement, feat, exploit, accomplishment, attainment, performance, acquirement, gain. (Failure.) Acknowledge, admit, confess, own, avow, grant, recognize, allow, concede. (Deny.) Acquaint, inform, enlighten, apprise, make aware, make known, notify, communicate. (Deceive.) Acquaintance, familiarity, intimacy, cognizance, fellowship, companionship, knowledge. (Unfamiliarity.) Acquiesce, agree, accede, assent, comply, consent, give way, coincide with. (Protest.) Acquit, pardon, forgive, discharge, set free, clear, absolve. (Condemn, convict.) Act, do, operate, make, perform, play, enact. Action, deed, achievement, feat, exploit, accomplishment, battle, engagement, agency, instrumentality. Active, lively, sprightly, alert, agile, nimble, brisk, quick, supple, prompt, vigilant, laborious, industrious. (Lazy, passive.) Actual, real, positive, genuine, certain. (Fictitious.) Acute, shrewd, intelligent, penetrating, piercing, keen. (Dull.) Adapt, accommodate, suit, fit, conform. Addicted, devoted, wedded, attached, given up to, dedicated. Addition, increase, accession, augmentation, reinforcement. (Subtraction, separation.) Address, speech, disaugmentation, reinforcement. (Subtraction, separation.) Address, speech, discourse, appeal, oration, tact, skill, ability, dexterity, deportment, demeanor. Adhesion, adherence, attachment, fidelity, devotion. (Aloofness.) Adjacent, near to, adjoining, contiguous, conterminous, bordering, neighboring. (Distant.) Adjourn, defer, prorogue, postpone, delay. Adjunct, appendage, appurtenance, appendency, dependency. Adjust, set right, fit, accommodate, adapt, arrange, settle, regulate, organize. (Confuse.) Admirable, striking surprising, wonderful, astonishing. (Detestable.) Admit, allow, permit, suffer, tolerate. (Deny.) Advantageous, beneficial. (Hurthl.) Affection, love. (Aversion.) Affection ate, fond, kind. (Harsh.) Agreeable, pleasant, pleasing, charming. (Disagreeable.) Alternating, intermittent. (Continual.) Ambassador, envoy, plenipotentiary, minister. Amend, improve, correct, better, mend. (Impair.) Anger, ire, wrath, indignation, resentment. (Good nature.) Appropriate, assume, ascribe, arrogate, usurp. Argue, debate, dispute, reason upon. Arise, flow, emanate, spring, proceed, rise, issue. Artful, disingenuous, sly, tricky, inside are all the streets are finessed. sincere. (Candid.) Artifice, trick, stratagem, finesse. Association, combination, company, partnership, society. Attack, assail, assault, encounter. (Defend.) Audacity, boldness, effrontery, hardihood. (Meekness.) Austere, rigid, rigorous, severe, stern. (Dissolute.) Avaricious, niggardly, miserly, parsimonious. (Generous.) Aversion, antipathy, dislike, hatred, repugnance. (Affection.) Awe, dread, fear, reverence. (Familiarity.) Awkward, clumsy. (Graceful.) Axiom, adage, aphorism, apothegm, by-word, maxim, proverb, saying, saw.

BABBLE, chatter, prattle, prate. Bad, wicked, evil. (Good.) Baffle, confound, defeat, disconcert. (Aid, abet.) Base, vile, mean. (Noble.) Battle, action, combat, engagement. Bear, carry, convey, transport. Bear, endure, suffer, support. Beastly, brutal, sensual, bestial. Beat, defeat, overpower, overthrow, rout. Beautiful, fine, handsome, pretty. (Homely, ugly.) Becoming, decent, fit, seemly, suitable. (Unbecoming.) Bag, beseech, crave, entreat, implore, solicit,

supplicate. (Give.) Behavior, carriage, conduct, deportment, demeanor. Belief, credit, faith, trust. (Doubt.) Beneficient, bountiful, generous, liberal, munificent. (Covetous, miserly.) Benefit, favor, advantage, kindness, civility. (Injury.) Benevolence, beneficence, benignity, humanity, kindness, tenderness. (Malevolence.) Blame, censure, condemn, reprove, reproach, upbraid. (Praise.) Blemish, flaw, speck, spot, stain. (Ornament.) Blind, sightless, heedless. (Far-sighted.) Blot, cancel, efface, expunge, erase, obliterate. Bold, brave, daring, fearless, intrepid, undaunted. (Timid.) Border, brim, brink, edge, margin, rim, verge, boundary, confine, frontier. Bound, circumscribe, confine, limit, restrict. Brave, dare, defy. Bravery, courage, valor. (Cowardice.) Break, bruise, crush, pound, squeeze. Breeze, blast, gale, gust, hurricane, storm, tempest. Bright, clear, radiant, shining. (Dull.) Brittle. Burial, interment, sepulture. (Resurrection.) Business, avocation, employment, engagement, occupation, art, profession, trade. Bustle, stir, tumult, fuss. (Quiet.)

CALAMITY, disaster, misfortune, mischance, mishap. (Good fortune.)
Calm, collected, composed, placid, serene. (Stormy, unsettled.) Capable, able, competent. (Incompetent.) Captious, fretful, cross, peevish, petulant. (Good-natured.) Care, anxiety, concern, solicitude, heed, attention. (Heedlessness, negligence.) Caress, kiss, embrace. (Spurn, buffet.) Carnage, butchery massacre, slaughter. Cause, motive, reason. (Effect, consequence.) Cease, discontinue, leave off, end. (Continue.) Censure, animadvert, criticise. (Praise.) Certain, secure, sure. (Doubtful.) Cessation, intermission, rest, stop. (Continuance.) Chance, fate, fortune. (Design.) Change, barter, exchange, substitute. Changeable, fickle, inconstant, mutable, variable. (Unchangeable.) Character, reputation, repute, standing. Charm, captivate, enchant, enrapture, fascinate. Chastity, purity, continence, virtue. (Lewdness.) Cheap, inexpensive, inferior, common. (Dear.) Cheerful, gay, merry, sprightly. (Mournful.) Chief, chieftain, head, leader Cheerful, gay, merry, sprightly. (Mournful.) Chief, chieftain, head, leader (Subordinate.) Circumstance, fact, incident. Class, degree, order, rank, Clear, bright, lucid, vivid. (Opaque.) Clever, adroit, dexterous, expert, skillful. (Stupid.) Clothed, clad, dressed. (Naked.) Coarse, rude, rough, unpolished. (Fine.) Coax, cajole, fawn, wheedle. Cold, cool, frigid, wintry, unfeeling, stoical. (Warm.) Color, dye, stain, tinge. Colorable, ostensible, plausible, precious. Combination, cabal conspiracy, plot. Command injunction order. specious. Combination, cabal, conspiracy, plot. Command, injunction, order, precept. Commodity, goods, merchandise, ware. Common, mean, ordinary, vulgar. (Uncommon, extraordinary.) Compassion, sympathy, pity, clemency. (Cruelty, severity.) Compel, force, oblige, necessitate. (Coax, lead.) Compensation, amends, recompense, remuneration, requital, reward. Compendium, compend, abridgment. (Enlargement.) Complain, lament, murmur, regret, repine. (Rejoice.) Comply, accede, conform, submit, yield. (Refuse.) Compound, complex. (Simple.) Comprehend, comprise, include, embrace, grasp, understand, perceive. (Exclude, mistake.) Comprise, comprehend, contain, embrace, include. Conceal, hide, secrete. (Uncover.) Conceive, comprehend, understand. Conclusion, inference, deduction. Condemn, censure, blame, disapprove. (Justify, exonerate.) Conduct, direct, guide, lead, govern, regulate, manage. Confirm, corroborate, approve, attest. (Contradict.) Conflict, combat, contest, contention, struggle. (Peace, quiet.) Confute, disprove, refute, oppugn. (Approve.) Conquer, overcome, subdue, surmount, vanquish. (Defeat) Consequence, effect, event, issue, result. (Cause.) Consider, reflect, ponder, weigh. Consistent, constant, compatible. (Inconsistent.) Console, comfort, solace. (Harrow, worry.) Constancy, firmness, stability, steadiness. (Fickleness.) Contaminate, corrupt, defile, pollute, taint. Contemn, despise, disdain, scorn. (Esteem.) Contemplate, meditate, muse. Contemptible. despicable, paltry, pitiful, vile, mean. (Noble.) Contend, contest, dispute, strive, struggle, combat. Continual, constant, continuous, perpetual, incessant. (Intermittent. Continuance, continuation, duration. (Cessation.) Continue, persist, persevere, pursue, prosecute. (Cease.) Contradict, deny, gainsay, oppose. (Confirm.) Cool, cold, frigid. (Hot.) Correct, rectify, reform. Cost, charge, expense, price. Covetousness, avarice, cupidity. (Beneficence.) Cowardice, fear, timidity, pusillanimity. (Courage.) Crime, sin, vice, misdemeanor. (Vir-

tue.) Criminal, convict, culprit, felon, malefactor. Crooked, bent, curved, oblique. (Straight.) Cruel, barbarous, brutal, inhuman, savage. (Kind.) Cultivation, culture, refinement. Cursory, desultory, hasty, slight. (Thorough.) Custom, fashion, manner, practice.

DANGER, hazard, peril. (Safety.) Dark, dismal, opaque, obscure, dim. (Light.) Deadly, fatal, destructive, mortal. Dear, beloved, precious, costly, expensive. (Despised, cheap.) Death, departure, decease, demise. (Life.) Decay, decline, consumption. (Growth.) Deceive, delude, impose upon, over-reach, gull, dupe, cheat. Deceit, cheat, imposition, trick, delusion, guile, beguilement, treachcry, sham. (Truthfulness.) Decide, determine, settle, adjudicate, terminate, resolve. Decipher, read, spell, interpret, solve. Decision, determination, conclusion, resolution, firmness. (Vacillation.) Declamation, oratory, elocution, harangue, effusion, debate. Declaration, avowal, manifestation, statement, pro-Decision, determination, confession. Decrease, diminish, lessen, wane, decline, retrench, curtail, reduce. (Growth.) Dedicate, devote, consecrate, offer, set, apportion. Deed, act, action, commission, achievement, instrument, document, muniment. Deem, judge, estimate, consider, think, suppose, conceive. Deep, profound, subterranean, submerged, designing, abstruse, learned. (Shallow.) Deface, mar, spoil, injure, disfigure. (Beautify.) Default, lapse, forfeit, omission, absence, want, failure. Defect, imperfection, flaw, fault, blemish. (Beauty, improvement.) Defend, guard, protect, justify. Defense, excuse, plea, vindication, bulwark, rampart. Defer, delay, postpone, put off, prorogue, adjourn. (Force, expedite.) Deficient, short, wanting, inadequate, scanty, incomplete. (Complete, perfect.) Defile, v., pollute, corrupt, sully. (Beautify.) Define, fix, settle, determine, limit. Defray, meet, liquidate, pay, discharge. Degree, grade, extent, measure. Deliberate, v., consider, meditate, consult, ponder, debate. Deliberate, a., purposed, intentional, designed, determined. (Hasty.) Delicacy, nicety, dainty, refinement, tact, softness, modesty. (Boorishness, indelicacy.) Delicate, tender, fragile, dainty, refined. (Coarse.) Delicious, sweet, palatable. (Nauseous.) Delight, enjoyment, pleasure, happiness, transport, ecstacy, gladness, rapture, bliss. (Annoyance.) Deliver, liberate, free, rescue, pronounce, give, hand over. (Retain.) Demonstrate, prove, show, exhibit, illustrate. Depart, leave, quit, decamp, residual description of the party of t tire, withdraw, vanish. (Remain.) Deprive, strip, bereave, despoil, rob, divest. Depute, appoint, commission, charge, intrust, delegate, authorize, accredit. Derision, scorn, contempt, contumely, disrespect. Derivation, origin, source, beginning, cause, etymology, root. Describe, delineate, portray, explain, illustrate, define, picture. Desecrate, profane, secularize, misuse, abuse, pollute. (Keep holy.) Deserve, merit, earn, justify, win. Design, n., delineation, sketch, drawing, cunning, artfulness, contrivance. Desirable, expedient, advisable, valuable, acceptable, proper, judicious, beneficial, profitable, good. Desire, n., longing, affection, craving. Desist, cease, stop, discontinue, drop, abstain, forbare. (Continue, persevere.) Desolate, bereaved, forlorn, forsaken, deserted, wild, waste, bare, bleak, lonely. (Pleasant, happy.) Desperate, wild, daring, audacious, determined, reckless. Despised. Destiny, fate, decree, doom, end. Destructive, detrimental, hurtful, noxious, injurious, deleterious, baleful, baneful, subversive. (Creative, constructive.) Desuetude, disuse, discontinuance. (Maintenance.) Desultory, rambling, discursive, loose, unmethodical, superficial, unsettled, erratic, fitful. (Thorough.) Detail, n., particular, specification, minutiæ. Detail, v., particularize, enumerate, specify. (Generalize.) Deter, warn, stop, dissuade, terrify, scare. (Encourage.) Detriment, loss, harm, injury, deterioration. (Benefit.) Develop, unfold, amplify, expand, enlarge. Device, artifice, expedient, contrivance. Devoid, void, wanting, destitute, unendowed, unprovided. (Full, complete.) Devoted, attached, fond, absorbed, dedicated. Dictate, prompt, suggest, enjoin, order, command. Dictatorial, imperative, imperious, domineering, arbitrary, tyrannical, overbearing. (Submissive.) Dle, expire, depart, perish, decline, languish, wane, sick, fade, decay. Diet, food, victuals, nourishment, nutriment, sustenance, fare. Difference, separation, disagreement, discord, dissent, estrangement, variety. Different, various, manifold, diverse, unlike, separate, distinct. (Similar, homogeneous.) Difficult, hard, intricate, involved, perplexing, obscure, unmanageable. (Easy.) Diffuse, discursive, prolix,

diluted, copious. Dignify, aggrandize, elevate, invest, exalt, advance, promote, honor. (Degrade.) Dilate, stretch, widen, expand, swell, distend, enlarge, descant, expatiate. Dilatory, tardy, procrastinating, behindhand, lagging, dawdling. (Prompt.) Diligence, care, assiduity, attention, heed, industry. (Negligence.) Diminish, lessen, reduce, contract, curtail, retrench. (Increase.) Disability, unfitness, incapacity. Discern, descry, observe, recognize, see, discriminate, separate, perceive. Discipline, order, strictness, training, coercion, punishment, organization. (Confusion, demoralization. Discover, make known, find, invent, contrive, expose, reveal. Discreditable, shameful, disgraceful, scandalous, disreputable. (Creditable.) Discreet, cautious, prudent, wary, judicious. (Indiscreet.) Discrepancy, disagreement, difference, variance. (Agreement.) Discrimination, acuteness, discernment, judgment, caution. Disease, complaint, malady, disorder, ailment, sickness. Disgrace, n., disrepute, reproach, dishonor, shame, odium. (Honor.) Disgrace, v., debase, degrade, defame, discredit. (Exalt.) Disgust, dislike, distaste, loathing, abomination, abhorrence. (Admiration.) Dishonest, unjust, fraudulent, unfair, deceitsul, cheating, deceptive, wrongsul. (Honest.) Dismay, v., terrify, frighten, scare, daunt, appall, dishearten. (Encourage.) Dismay, n., terror, dread, sear, fright. (Assurance.) Dismiss, send off, discharge, discard, banish. (Retain.) Dispel, scatter, drive away, disperse, dissipate. (Collect.) Display, show, spread out, exhibit, expose. (Hide.) Display, arrange, place, order give better. pose, arrange, place, order, give, bestow. Dispute, v., argue, contest, contend, question, impugn. (Assent.) Dispute, n., argument, debate, controversy, quarrel, disagreement. (Harmony.) Dissent, disagree, differ, vary. (Assent) Distinct, clear, plain, obvious, different, separate. (Obscure, indistinct.) Distinguish, perceive, discern, mark out, divide, discriminate. Distinguished, famous, glorperceive, discern, mark out, divide, discriminate. Distinguished, famous, giorious, far-famed, noted, illustrious, eminent, celebrated. (Obscure, unknown, ordinary.) Distract, perplex, bewilder. (Calm, concentrate.) Distribute, allot, shar, dispense, apportion, deal. (Collect.) Disturb, derange, discompose, agitate, rouse, interrupt, confuse, annoy, trouble, vex, worry. (Pacify, quiet.) Disturb descontinuance, abolition, desuetude. (Use.) Divide, part, separate, distribute. deal out, sever, sunder. Divine, godlike, holy, heavenly, sacred, a parson, clergyman, minister. Do, effect, make, perform, accomplish, finished, transact. Docil, tractable, teachable, compliant, tame. (Stubborn.) Doctrine, tenet, articles of belief, creed, dogma, teaching. Doleful, dolorous, woe-begone, sueful, dismal, piteous. (Ioyous.) Doom, so sentence, verdict, judgment, fate, lot, described and supplied to the control of the control articles of belief, creed, dogma, teaching. Doleful, dolorous, woe-begone, wetul, dismal, piteous. (Joyous.) Doom, n., sentence, verdict, judgment, fate, lot, destiny. Doubt, n., uncertainty, suspense, hesitation, scruple, ambiguity. (Certainty.) Draw, pull, haul, drag, attract, inhale, sketch, describe. Dread, n., fear, horror, terror, alarm, dismay, awe. (Boldness, assurance.) Dread, ul, fearful, frightful, shocking, awful, librible, horrid, terrific. Dress, n., clocking, attire, apparel, garments, costume, garb, livery. Drift, purpose, meaning, scope, aim, tendency, direction. Droll, funny, laughable, comic, whimsical, queer, amusing. (Solemn.) Drown, inundate, swamp, submerge, overwheim, engulf. Dry, a., arid, parched, lifeless, dull, tedious, uninteresting, meagre. (Moist interesting, succulent.) Due, owing to, attributable to, just, fair, proper, debt, ight. Dull, stupid, gloomy, sad, dismal, commonplace. (Bright.) Dunce, simpleton, Dull, stupid, gloomy, sad, dismal, commonplace. (Bright.) Dunce, simpleton, fool, ninny, idiot. (Sage.) Durable, lasting, permanent, abiding, continuing. (Ephemeral, perishable.) Dwell, stay, stop, abide, sojourn, linger, carry. Dwindle, pine, waste, diminish, decrease, fall off. (Grow.)

EAGER, hot, ardent, impassioned, forward, impatient. (Diffident.) Earn, acquire, obtain, win, gain, achieve. Earnest, a., ardent, scrious, grave, solemn, warm. (Trifling.) Earnest, n., pledge, pawn. Ease, n., comfort, rest. (Worry.) Ease, v., calm, alleviate, allay, mitigate, appease, assuage, pacify, disburden, rid, (Annoy, worry.) Easy, light, comfortable, unconstrained. (Difficult, hard.) Eccentric, irregular, anomalous, singular, odd, abnormal, wayward, particular, strange. (Regular, ordinary.) Economical, sparing, saving, provident, thrifty, frugal, careful, niggardly. (Wasteful.) Edge, border, brink, rim, brim, margin, verge. Efface, blot out, expunge, obliterate, wipe out, cancel, erase. Effect, n., consequence, result, issue, event, execution, operation. Effect, v., accomplish, fulfill, realize, achieve, execute, operate, complete. Effective, efficient, operative, serviceable. (Vain, ineffectual.) Efficacy, efficiency, energy, agency, instrument

tality. Efficient, effectual, effective, competent, capable, able, fitted. Eliminate, drive out, expel, thrust out, eject, cast out, oust, dislodge, banish, proscribe. Eloquence, oratory, rhetoric, declamation. Elucidate, make plain, explain, clear up, illustrate. Elude, evade, escape, avoid, shun. Embarrass, perplex, entangle, distress, trouble. (Assist.) Embellish, adorn, decorate, bedeck, beautify, deck. (Disfigure.) Embolden, inspirit, animate, encourage, cheer, urge, impel, stimulate. (Discourage.) Eminent, distinguished, signal, conspicuous, noted, prominent, elevated, renowned, famous, glorious, illustrious. (Obscure, unknown.) Emit, give out, throw out, exhale, discharge, vent. Emotion, perturbation, agitation, trepidation, tremor, mental conflict. Employ, occupy, busy, take p with, engross. Employment, business, avocation, engagement, office, function, trade, profession, occupation, calling, vocation. Encompass, v., encircle, surround, gird, beset. Encounter, attack, conflict, combat, assault, onset, engagement, battle, action. Encourage, countenance, sanction, support, foster, cherish, inspirit, embolden, animate, cheer, incite, urge, impel, stimulate. (Deter.) End, n., aim, object, purpose, result, conclusion, upshot, close, expiration, termination, extremity, sequel. Endeavor, attempt, try, essay, strive, aim. Endurance, continuation, duration, fortitude, patience, resignation. Endure, v., last, continue, support, bear, sustain, suffer, brook, submit to, undergo. (Perish) Enemy, foe, antagonist, adversary, opponent. (Friend.) Energetic, industrious, effectual, efficacious, powerful, binding, stringent, forcible, nervous. (Lazy.) Engage, employ, busy, occupy, attract, invite, allure, entertain, engross, take up, enlist. Engross, absorb, take up, busy, occupy, engage, monopolize. Engulf, swallow up, absorb, imbibe, drown, submerge, bury, entomb, overwhelm. Enjoin, order, ordain, appoint, prescribe. Enjoyment, pleasure, gratification. (Grief, sorrow, sadness.) Enlarge, increase, extend, augment, broaden, swell. (Diminish.) Enlighten, illumine, illuminate, instruct, inform. (Befog, becloud.) Enliven, cheer, vivify, stir up, aminate, inspire, exhibitate. (Sadden, quiet.) Enmity, animosity, hostility, ill-will, maliciousness. (Friendship.) Enormous, gigantic, colossal, huge, vast, immense, prodigious. (Insignificant.) nough, sufficient, plenty, abundance. (Want.) Enraged, infuriated, raging, wrathful. (Pacified.) Enrapture, enchant, fascinate, charm, captivate, bewitch. (Repel.) Enroll, enlist, list, register, record. Enterprise, undertaking, endeavor, venture, energy. Enthusiasm, earnest, devotion, zeal, ardor. (Ennui, lukewarmness.) Enthusiast, fanatic, visionary. Equal, equable, even, like, alike, uniform. (Unequal.) Eradicate, root out, extirpate, exterminate. Erroneous, incorrect, inaccurate, inexact. (Exact.) Error, blunder, mistake. (Truth.) Especially, chiefly, particularly, principally. (Generally.) Essay, dissertation, tract, treatise. Establish, build up, confirm. (Overthrow.) Esteem, regard, respect. (Contempt.) Estimate, appraise, appreciate, esteem, compute, rate. Estrangement, abstraction, alienation. Eternal, endless, everlasting. (Finite.) Evade, equivocate, prevaricate. Even, level, plain, smooth. (Uneven.) Event, accident, adventure, incident, occurrence. Evil, ill, harm, mischief, misfortune. (Good.) Exact, nice, particular, punctual. (Inexact) Exalt, ennoble, dignify, raise. (Humble.) Examination, investigation, inquiry, research, search, scrutiny. Exceed, excel, outdo, surpass, transcend. (Fall Short.) Exceptional, uncommon, rare, extraordinary. (Common.) Excite, awaken, provoke, rouse, stir up. (Lull.) Excursion, jaunt, ramble, tour, trip. Execute, fulfill, perform. Exempt, free, cleared. (Subject.) Exercise, practice. Exhaustive, thorough, complete. (Cursory.) Exigency, emergency. Experiment, proof, trial, test. Explain, expound, interpret, illustrate, elucidate. Express, declare, signify, utter, tell. Extend, reach, stretch. (Abridge.) Extravagant, lavish, profuse, prodigal. (Parsimonious.)

FABLE, apologue, novel, romance, tale. Face, visage, countenance. Facetious, pleasant, jocular, jocose. (Serious.) Factor, agent. Fail, to fall short, be deficient. (Accomplish.) Faint, languid. (Forcible.) Fair, clear. (Stormy.) Fair, equitable, honest, reasonable. (Unfair.) Faith, creed. (Unbelief, infidelity.) Faithful, true, loyal, constant. (Faithful.) Faill, drop, droop, droop, son, illustrice. (Rise.) Fame, renown, reputation, (Champa) Fame, renown, reputation, Famous, celebrated, renowned, illustrious. (Obscure.) Fanciful, capricious, fantastical, whimsical. Fancy, imagination. Fast, rapid, quick, fleet, expedi-

(Slow.) Fatigue, weariness, lassitude. (Vigor.) Fear, timidity, timorousness. (Bravery.) Feeling, sensation, sense. Feeling, sensibility, susceptibility. (Insensibility.) Ferocious, fierce, savage, wild, barbarous. (Mild.) Fertile, fruitful, prolific, plenteous, productive. (Sterile.) Fiction, falsehood, febrication. (Fact.) Figure, allegory, emblem, metaphor, symbol, type Find, find, out deserve discovery experience. find out, descry, discover, espy. (Lose, overlook.) Fine, a., delicate, nice. (Coarse.) Fine, forfeit, forfeiture, mulct, penalty. Fire, glow, heat, warmth. Firm, constant, solid, steadfast, fixed, stable. (Weak.) First, foremost, earliest. (Last.) Fit, accommodate, adapt, adjust, suit. Fix, determine, establish, settle, limit. Flame, blaze, flare, flash, glare. Flat, level, even. Flexible, pliant, pliable, ductile, supple. (Inflexible.) Flourish, prosper, thrive. (Decay.) Fluctuating, wavering, hesitating, oscillating, vacillating, change. (Firm, steadfast, decided.) Fluent, flowing, glib, voluble, unembarrassed, ready. (Hesitating.) Folks, persons, people, individuals. Follow, succeed, ensue, imitate, copy, pursue. Folsons, people, individuals. Follow, succeed, ensue, imitate, copy, pursue. Follower, partisan, disciple, adherent, retainer, pursurer, successor. Folly, silliness, foolishness, imbeculity, weakness. (Wisdom.) Fond, enamored, attached, affectionate. (Distant.) Fondness, affection, attachment, kindness, love. (Aversion.) Foolhardy, venturesome, incautious, hasty, adventurous, rash. (Cautious.) Fool-Ish, simple, silly, irrational, brainless, imbecile, crazy, absurd, preposterous, ridiculous, nonsensical. (Wise, discreet.) Fop, dandy, dude, beau, coxcomb, puppy, jackanapes. (Gentlemen.) Forbear, abstain, refrain, withhold. Force, n., strength, vigor, dint, might, energy, power, violence, army, host. Force, v., compel. (Persuade.) Forecast, forethought, foresight, premeditation, prognostication. Forego, quit, relinquish, let go, waive. Foregoing, antecedent, anterior, preceding, previous, prior, former. Forerunner, herald, harbinger, precursor, omen. Foresight, forethought, forecast, premeditation. Forge, coin, invent, frame, feign, fabricate, counterfeit. Forgive, pardon, remit, absolve, acquit, exframe, feign, fabricate, counterfeit. Forgive, pardon, remit, absolve, acquit, excuse, except. Forlorn, forsaken, abandoned, deserted, desolate, lone, lonesome. Form, n., ceremony, solemnity, observance, rite, figure, shape, conformation, fashion, appearance, representation, semblance. Form, v., make, create, produce, constitute, arrange, fashion, mould, shape. Formal, ceremonious, precise, exact, stiff, methodical, affected. (Informal, natural.) Former, antecedent, anterior, previous, prior, preceding, foregoing. Forsaken, abandoned, forlorn, deserted, desolate, lone, lonesome. Forthwith, immediately, directly, instantly, instantaneously. (Anon.) Fortitude, endurance, resolution, fearlessness, dauntlessness. ously. (Anon.) Fortitude, endurance, resolution, fearlessness, dauntlessness. (Weakness.) Fortunate, lucky, happy, auspicious, prosperous, successful. (Unfortunate.) Fortune, chance, fate, luck, doom, destiny, property, possession, riches Foster, cherish, nurse, tend, harbor, nurture. (Neglect.) Foul, impure, nasty, filthy, dirty, unclean, defiled. (Pure, clean.) Fractious, cross, captious, petulant, touchy, testy, peevish, fretful, splenetic. (Tractable.) Fragile, brittle, frail, delicate, feeble. (Strong.) Fragments, pieces, scraps, chips, leavings, remains, remnants. Frailty, weakness, failing, foible, imperfection, fault, blemish. (Strength.) Frame, v., construct, invent, coin, fabricate, forge, mold, feign, make, compose. Franchise, right, exemption, immunity, privilege, freedom, suffrage. Frank, artless, candid, sincere, free, easy, familiar, open, ingenuous, plain. (Tricky, insincere.) Frantic, distracted, mad, furious, raving, frenzied. (Quiet, subdued.) Fraud, deceit, deception, duplicity, guile, cheat, imposition. (Quiet, subdued.) Fraud, deceit, deception, duplicity, guile, cheat, imposition. (Honesty.) Freak, fancy, humor, vagary, whim, caprice, crotchet. (Purpose, resolution.) Free, a., liberal, generous, bountiful, bounteous, munificent, frank, artlass, condid familiar page independent unconfined unreserved unrestricted artless, candid, familiar, open, independent, unconfined, unreserved, unrestricted, exempt, clear, loose, easy, careless. (Slavish, stingy, artful, costly.) Free, v., release, set free, deliver, rescue, liberate, enfranchise, affranchise, emancipality. exempt. (Enslave, bind.) Freedom, liberty, independence, unrestraint, familiarity, license, franchise, exemption, privilege. (Slavery.) Frequent, often, common, usual, general. (Rare.) Fret, gall, chafe, agitate, irritate, vex. Friendly, amicable, social, sociable. (Distant, reserved, cool.) Frightful, fearful, dreadful, dire, direful, terrific, awful, horrible, horrid. Frivolous, trifling, trivial, petty. (Serious, earnest.) Frugal, provident, economical, saving. (Wasteful, extravagant.) Fruitful, fertile, prolific, productive, abundant, plentiful, plenteous. (Barten, sterile.) Fruitfuls, vain useless, idle abortive bootless unavailing without ren, sterile.) Fruitless, vain, useless, idle, abortive, bootless, unavailing, without avail. Frustrate, defeat, foil, balk, disappoint. Fulfill, accomplish, effect,

complete. Fully, completely, abundantly, perfectly. Fulsome, coarse, gross, sickening, offensive, rank. (Moderate.) Furious, violent, boisterous, vehement, dashing, sweeping, rolling, impetuous, frantic, distracted, stormy, angry, raging, fierce. (Calm.) Futile, trifling, trivial, frivolous, useless. (Effective.)

GAIN, n., profit, emolument, advantage, benefit, winnings, earnings. (Loss.) Gain, v., get, acquire, obtain, attain, procure, earn, win, achieve, reap, realize, reach. (Lose.) Gallant, brave, bold, courageous, gay, fine, showy, intrepid, fearless, heroic. Galling, chafing, irritating, vexing. (Soothing.) Game, play, pastime, diversion, sport, amusement. Gang, band, horde, company, troop, crew. Gap, breach, charm, hollow, cavity cleft, crevice, rift, chink. Garnish, embellish, adorn, beautify, deck, decorate. Gather, pick, cull, assemble, muster, infer, collect. (Scatter.) Gaudy, showy, flashy, tawdry, gay, glittering, bespangled. (Sombre.) Gaunt, emaciated, scraggy, skinny, meagre, lank, attenuated, spare, lean, thin. (Well-fed.) Gay, cheerful, merry, lively, jolly, sprightly, blithe. (Solemn.) Generate, form, make, beget, produce. Generation, formation, race, breed, stock, kind, age, era. Generous, beneficent, noble, honorable, bountiful, liberal, free. (Niggardly.) Genial, cordial, hearty, festive, joyous. (Distant, cold.) Genius, intellect, invention, talent, taste, nature, character, adept. Gentel, refined, polished, fashionable, polite, well-bred. (Boorish.) Gentle, placid, mild, bland, meek, tame, docile. (Rough, uncouth.) Genuine, real, true, unaffected, sincere. (False.) Gesture, attitude, action, posture. Get, obtain, earn, grain, attain procure, achieve, Ghastly, pallid, wan hideous grim sheeking. gain, attain, procure, achieve. Ghastly, pallid, wan, hideous, grim, shocking. Ghost, spectre, sprite, apparition, shade, phantom, Gibe, scoff, sneer, flout, jeer, mock, taunt, deride. Giddy, unsteady, flighty, thoughtless. (Steady.) Gift, donation, benefaction, grant, alms, gratuity, boon, present, faculty, talent. (Purchase). Girantic colored huse, procure to the colored huse, grant and the colored huse, grant and the colored huse. chase.) Gigantic, colossal, huge, enormous, vast, prodigious, immense. (Diminutive.) Give, grant, bestow, confer, yield, impart. Glad, pleased, cheerful, joyful, gladsome, gratisied, cheering. (Sad.) Gleam, glimmer, glance, glitter, shine, flash. Glee, gayety, merriment, mirth, jovialty, jovialness, catch. (Sorrow.) Glide, slip, slide, run, roll on. Glimmer, v., gleam, flicker, glitter. Glimpse, glance, look, glint. Glitter, gleam, shine, glisten, glister, radiate. Gloom, cloud, darkness, dimness, blackness, dulness, sadness. (Light, brightness, joy.) Gloomy, lowering, lurid, dim, dusky, sad, glum. (Bright, clear.) Glorify, magnify, celebrate, adore, exalt. Glorious, famous, renowned, distinguished, noble, exalted. (Infamous.) Glory, honor, fame, renown, splendor, grandeur. (Infamy.) Glut, gorge, stuff, cram, cloy, satiate, block up. Go, depart, proceed, move, budge, stir. God, creator, lord, almighty, jehovah, omnipotence, providence. Godly, right eous, devout, holy, pious, religious. Good, benefit, weal, advantage, profit, boon. (Evil.) Good, a., virtuous, righteous, upright, just, true. (Wicked, bad.) Gorge glut, fill, cram, stuff, satiate. Gorgeous, superb, grand, magnificent, splendid. (Plain, simple.) Govern, rule, direct, manage, command. Government, rule, state, control, sway. Graceful, becoming, comely, elegant, beautiful. (Awkward.) Graoious, merciful, kindly, beneficent. Gradual, slow, progressive. (Sudden.) Grand, majestic, stately, dignified, lofty, elevated, exalted, splendid, gorgeous, superb, magnificent, sublime, pompous. (Shabby.) Grant, bestow, impart, give, yield, cede, allow, conser, invest. Grant, gift, boon, donation. Graphic, forcible, telling, picturesque, vivid, pictorial. Grasp, catch, seize, gripe, clasp, grapple. Grateful, agreeable, pleasing, welcome, thankful. (Harsh, Gratification, enjoyment, pleasure, delight, reward. (Disappointment.) Grave a., serious, sedate, solemn, sober, pressing, heavy. (Giddy.) Grave, s., tombs sepulchre, vault. Great, big, huge, large, majestic, vast, grand, noble, august (Small.) Greediness, avidity, eagerness, voracity. (Generosity.) Grief, affliction, sorrow, trial, woe, tribulation. (Joy.) Grieve, mourn, lament, sorrow, pain hurt, wound, bewail. (Rejoice.) Grievous, painful, afflicting, heavy, baleful unhappy. Grind, crush, oppress, grate, heavy, afflict. Grisly, terrible, hideous grim, ghastly, dreadful. (Pleasing.) Gross, coarse, outrageous, unseemly shameful, indelicate. (Delicate.) Group, assembly, cluster, collection, clump order, class. Grovel, crawl, cringe, fawn, sneak. Grow, increase, vegetate, expand, advance. (Decay, diminution.) Growl, grumble, snarl, murmur, complain Grudge, malice, rancor, spite, pique, hatred, aversion. Gruff, rough, rugged

blunt, rude, harsh, surly, bearish. (Pleasant.) Guile, deceit, fraud. (Candor.) Guiltless, harmless, innocent. Guilty, culpable, sinful, criminal.

HABIT, custom, practice. Hail, accost, address, greet, salute, welcome. Happiness, beatitude, blessedness, bliss, felicity. (Unhappiness.) Harbor, haven, port. Hard, firm, solid. (Soft.) Hard, arduous, difficult. (Easy.) Harm, injury, hurt, wrong, infliction. (Benefit.) Harmless, safe, innocuous, innocent. (Iturtful.) Harsh, rough, rigorous, severe, gruff, morose. (Gentle.) Hasten, accelerate, despatch, expedite, speed. (Delay.) Hasty, hurried, ill-advised. (Deliberate.) Hateful, odious, detestable. (Lovable.) Hatred, enmity, ill-will, rancor. (Friendship.) Haughtiness, arrogance, pride. (Modesty.) Haughty, arrogant, disdainful, supercilious, proud. Hazard, risk, venture. Healthy, aslubrious, salutary, wholesome. (Unhealthy.) Heap, accumulate, amass, pile. Hearty, a., cordial, sincere, warm. (Insincere.) Heavy, burdensome, ponderous, weighty. (Light.) Heed, care, attention. Heighten, enhance, exalt, elevate, raise. Heinous, atrocious, flagitious, flagrant. (Venial.) Help, aid, assist, relieve, succor. (Hinder.) Heretic, sectary, sectarian, schismatic, dissenter, nonconformist. Hesitate, falter, stammer, stutter. Hideous, grim, ghastly, grisly. (Beautiful.) High, lofty, tall, elevated. (Deep.) Hinder, impede, obstruct, prevent. (Help.) Hint, allude, refer, suggest, intimate, insinuate. Hold, detain, keep, retain. Holiness, sanctity, piety, sacredness. Holy, devout, pious, religious. Homely, plain, ugly, coarse. (Beautiful.) Honesty, integrity, probity, uprightness. (Dishonesty.) Honor, v., respect, reverence, esteem. (Dishonor.) Hope, confidence, expectation, trust. Hopeless, desperate. Hot, ardent, burning, fiery. (Cold.) However, nevertheless, notwithstanding, yet. Humble, modest, submissive, plain, unostentatious, simple. (Haughty.) Humble, degrade, humiliate, mortify, abase. (Exalt.) Humor, mood, temper. Hunt, seek, chase. Hurtful, noxious, pernicious. (Beneficial.) Husbandry, cultivation, tillage. Hypocrite, dissembler, impostor, canter. Hypothesis, theory, supposition.

IDEA, thought, imagination. Ideal, Imaginary, fancied. (Actual.) Idle, indolent, lazy. (Industrious.) Ignominious, shameful, scandalous, infamous. Honorable.) Ignominy, shame, disgrace, obloquy, infamy, reproach. Ignorant, unlearned, illiterate, uninformed, uneducated. (Knowing.) Ill, n., evil, wickedness, misfortune, mischief, harm. (Good.) Ill, a., sick, indisposed, unwell, diseased. (Well.) Ill-tempered, crabbed, sour, surly, acrimonious. (Goodnatured.) Ill-will, enmity, hatred, antipathy. (Good-will.) Illegal, unlawful, illicit, contraband, illegitimate. (Legal.) Illimitable, boundless, immeasurable, unlimited, infinite. Illiterate, unlettered, unlearned, untaught, uninstructed. (Learned, educated.) Illusion, fallacy, deception, phantasm. Illusory, imaginary, chimerical, visionary. (Real.) Illustrate, explain, elucidate, clear. Illustrious, celebrated, noble, eminent, famous, renowned. (Obscure.) Image, likeness, picture, representation, effigy. Imaginary, ideal, fanciful, illusory. (Real.) Innagine, conceive, fancy, apprehend, think, presume. Imbecility, silliness, senility, dotage. Imitate, copy, ape, mimic, mock, counterfeit. Immaculate, unspotted, spotless, unsullied, stainless. (Soiled.) Immediate, pressing, instant, next, proximate. Immediately, instantly, forthwith, directly, presently. Immense, vast, enormous, huge, prodigious, monstrous. Immunity, privilege, prerogative, exemption. Impair, injure, diminish, decrease. Impart, reveal, divulge, disclose, discover, bestow, afford. Impartial, just, equitable, unbiased. (Partial.) Impassioned, glowing, burning, fiery, vehement, intense, Impeach, accuse, charge, arraign, censure. Impede, hinder, retard, obstruct, prevent. (Help.) Impediment, obstruction, hindrance, obstacle, barrier. (Aid.) Imperfection, fault, blemish, defect, vice. Imperil, endanger, hazard, jeopardize. Imperfection, fault, blemish, defect, vice. Imperil, endanger, hazard, jeopardize. Imperfection, found, domineering. Impertinent, intrusive, meddling, officious, rude, saucy, impudent, i

gravity, moment. Imposing, impressive, striking, majestic, august, noble, grand. (Insignificant.) Impotence, weakness, incapacity, infirmity, frailty, feebleness. (Power.) Impotent, weak, feeble, helpless, enfeebled, nerveless, infirm. (Strong.) Impressive, stirring, forcible, exciting, affecting, moving. Imprison, incarcerate, shut up, immure, confine. (Liberate.) Imprisonment, captivity, durance. Improve, amend, better, mend, reform, rectify, ameliorate, apply, use, employ. (Deteriorate.) Improvident, careless, incautious, imprudent, prodigal, wasteful, reckless, rash. (Thrifty.) Impudence, assurance, impertinence, confidence, insolence, rudeness. Impudent, saucy, brazen, bold, impertinent, forward, rude, insolent, immodest, shameless. Impulse, incentive, incitement, motive, instiga-Impulsive, rash, hasty, forcible, violent. (Deliberate.) blame, censure, reproach, charge, accusation. Inadvertency, error, oversight, blunder, inattention, carelessness, negligence. Incentive, motive, inducement, impulse. Incite, instigate, excite, provoke, stimulate, encourage, urge, impel. Inclination, leaning, slope, disposition, tendency, bent, bias, affection, attachment, wish, liking, desire. (Aversion.) Incline, v., slope, lean, slant, tend, bend, turn, bias, dispose. Inclose, surround, shut in, fence in, cover, wrap. Include, comprehend, comprise, contain, embrace, take in. Incommode, annoy, plague, molest, disturb, inconvenience, trouble. (Accomodate.) Incompetent, incapable, unable, inadequate, insufficient. (Competent.) Increase, v., extend, enlarge, augment, dilate, expand, amplify, raise, enhance, aggravate, magnify, grow. (Diminish.) Increase, n., augmentation, accession, addition, enlargement, extension. (Decrease.) Incumbent, obligatory. Indefinite, vague, uncertain, unsettled, loose, lax. (Definite.) Indicate, point out, show, mark. Indifference, apathy, carelessness, listlessness, insensibility. (Application, assiduity.) Indigence, want, neediness, penury, poverty, destitution, privation. (Affluence.) Indignation, anger, wrath, ire, resentment. Indignity, insult, affront, outrage, obloquy, opprobrium, reproach, ignominy. (Honor.) Indiscriminate, promiscuous, chance, indistinct, confused. (Select, chosen.) Indispensable, essential, necessary, requisite, expedient. (Unnecessary, supernumerary.) Indisputable, undeniable, undoubted, incontestable, indubitable, unquestionable, sure, infallible. Indorse, ratify, confirm, superscribe. Indulge, foster, cherish, fondle. (Deny.) Ineffectual, vain, useless, unavailing, fruitless, abortive, inoperative. (Effective.) Inequality, disparity, disproportion, dissimilarity, unevenness. (Equality.) Inevitable, unavoidable, not to be avoided, certain. Infamous, scandalous, shameful, ignominious, opprobrius, disgraceful. (Honorable.) Inference, deduction, corollary, conclusion, consequence. Infernal, diabolical, fiendish, devilish, hellish. Infest, annoy, plague, harass, disturb. Infirm, weak, feeble, enfeebled. (Robust.) Inflame, anger, irritate, enrage, chafe, incense, nettle, aggravate, imbitter, exasperate. (Allay, soothe.) Influence, v., bias, sway, prejudice, prepossess. Influence, n., credit, favor, reputation, character, weight, authority, sway, ascendency. Infringe, invade, intrude, contravene, break, transgress, violate. Ingenuous, artless, candid, generous, open, frank, plain, sincere. (Crafty.) Inhuman, cruel, brutal, savage, barbarous, ruthless, merciless, ferocious. (Humane.) Iniquity, injustice, wrong, grievance. Injure, damage, hurt, deteriorate, wrong, aggrieve, harm, spoil, mar, sully. (Benefit.) Injurious, hurtful, baneful, pernicious, deleterious, noxious, prejudicial, wrongful, damaging. (Beneficial.) Injustice, wrong, iniquity, grievance. (Right.) Innocent, guiltless, sinless, harmless, inoffensive, innoxious. (Guilty.) Innocuous, harmless, safe, innocent. (Hurtful.) Inordinate, intemperate, irregular, disorderly, excessive, immoderate. (Moderate.) Inquiry, investigation, examination, research, scrutiny, disquisition, question, query, interrogation. Inquisitive, prying, peeping, curious, peering. Insane, mad, deranged, delirious, demented. (Sane.) Insanity, madness, mental aberration, lunacy, delirium. (Sanity.) Insinuate, hint, intimate, suggest, infuse, introduce, ingratiate. Insipid, dull, flat, mawkish, tasteless, vapid, inanimate, lifeless. (Bright, sparkling.) Insolent, rude, saucy, pert, impertinent, abusive, scurrilous, opprobrious, insulting, offensive. Inspire, animate, exhilarate, enliven, cheer, breathe, inhale. Instability, mutability, fickleness, mutableness, wavering. (Stability, firmness.) Instigate, stir up, persuade, animate, incite, urge, stimulate, encourage. Instil, implant, inculcate, infuse, insinuate. Instruct, inform, teach, educate, enlighten, initiate. Instrumental, conducive, assistant, helping

ministerial. Insufficiency, inadequacy, incompetency, incapability, deficiency, lack. Insult, affront, outrage, indignity, blasphemy. (Honor.) Insulting, insolent, rude, saucy, impertinent, impudent, abusive. Integrity, uprightness, honesty, probity, entirety, entireness, completeness, rectitude, purity. (Dishonesty.) Intellect, understanding, sense, brains, mind, intelligence, ability, talent, genius. (Body.) Intellectual, mental, ideal, metaphysical. (Brutal.) Intelligible, clear, obvious, plain, distinct. (Abstruse.) Intemperate, immoderate, excessive, drunken, nimious, inordinate. (Temperate.) Intense, ardent, earnest, glowing, fervid, burning, vehement. Intent, design, purpose, intention, drift, view, aim, purport, meaning. Intercourse, commerce, connection, intimacy, acquaintance. Intendict, forbibt, inhibit, proscribe, debar, resplanted in the control of the terfere, meddle, intermeddle, interpose. Interminable, endless, interminate, infinite, unlimited, illimitable, boundless, limitless. (Brief, concise.) Interpose, intercede, arbitrate, mediate, interfere, meddle. Interpret, explain, expound, elucidate, unfold, decipher. Intimate, hint, suggest, insinuate, express, signify, impart, tell. Intimidate, dishearten, alarm, frighten, scare, appal, daunt, cow, browbest. (Fracurage) Intolerable in March 1988. browbeat. (Encourage.) Intolerable, insufferable, unbearable, insupportable, unendurable. Intrepid, bold, brave, daring, fearless, dauntless, undaunted, courageous, valorous, valiant, heroic, gallant, chivalrous, doughty. (Cowardly, faint-hearted.) Intrigue, plot, cabal, conspiracy, combination, artifice, ruse, amour. Intrinsic, real, true, genuine, sterling, native, natural. (Extrinsic.) Invalidate, quash, cancel, overthrow, vacate, nullify, annul. Invasion, incursion, irruption, inroad, aggression, raid, fray. Invective, abuse, reproach, railing, censure, sarcasm, satire. Invent, devise, contrive, frame, find out, discover, design. Investigation, examination, search, inquiry, research, scrutiny. Inveterate, confirmed, chronic, malignant. (Inchoate.) Invidious, envious, hateful, odious, malignant. Invigorate, brace, harden, nerve, strengthen, fortify. (Enervate.) Invincible, unconquerable, impregnable, insurmountable. Invisible, unseen, imperceptible, impalpable, unperceivable. Invite, ask, call, bid, request, allure, attract, solicit. Invoke, invocate, call upon, appeal, refer, implore, beseech. Involve, implicate, entangle, compromise, envelop. Irksome, wearisome, tiresome, tedious, annoying. (Pleasant.) Irony, sarcasm, satire, ridicule, raillery. Irrational, foolish, silly, imbecile, brutish, absurd, ridiculous. (Rational.) Irregular, eccentric, anomalous, sociologicale, intemperate. (Regular.) Irreligious, profane, godless, impious, sacrilegious, desecrating. Irreproachable, blameless, spotless, irreprovable. Irresistible, resistless, irrepressible. Irresolute, wavering, undetermined, undecided, vacillating. (Determined.) Irritable, excitable, irascible, susceptible, sensitive. (Calm.) Irritate, aggravate, worry, embitter, madden, exasperate. Issue, v., emerge, rise, proceed, flow, spring, emanate. Issue, n., end, upshot, effect, result, offspring, progeny.

JADE, harass, weary, tire, worry. Jangle, wrangle, conflict, disagree. Jarring, conflicting, discordant, inconsonant, inconsistent. Jaunt, ramble, excursion, trip. Jealousy, suspicion, envy. Jeopard, hazard, peril, endanger. Jest, joke, sport, divert, make game of. Journey, travel, tour, passage. Joy, gladness, mirth, delight. (Grief.) Judge, justice, referee, arbitrator. Joyful, glad, rejoicing, exultant. (Mournful.) Judgment, discernment, discrimination, understanding. Justice, equity, right. Justice is right as established by law; equity according to the circumstances of each particular case. (Injustice.) Justiness, accuracy, correctness, precision.

KEEP, preserve, save. (Abandon.) Kill, assassinate, murder, slay. Kindred, affinity, consanguinity, relationship. Knowledge, erudition, learning, science. (Ignorance.)

LABOR, toil, work, effort, drudgery. (Idleness.) Lack, need, deficiency, scarcity, insufficiency. (Plenty.) Lament, mourn, grieve, weep. (Rejoice.) Language, dialect, idiom, speech, tongue. Lascivious, loose, unchaste, lustful, lewd, lecherous. (Chaste.) Last, final, latest, ultimate. (First.) Laudable, commendable, praiseworthy. (Blamable.) Laughable, comical, droll, ludicrous. (Serious.) Lawful, legal, legitimate, licit. (Illegal.) Lead, conduct, guide. (Follow.) Lean, meagre. (Fat.) Learned, erudite, scholarly. (Ignorant.) Leave, v., quit, relinquish. Leave, n., liberty, permission, licence. (Prohibition.)

Life, existence, animation, spirit, vivacity. (Death.) Lifeless, dead, inanimate. Lift, erect. elevate, exalt, raise. (Lower.) Light, clear, bright. (Dark.) Lightness, flightiness, giddiness, levity, volatility. (Seriousness.) Likeness, resemblance, similarity. (Unlikeness.) Linger, lag, loiter, tarry, saunter. (Hasten.) Little, diminutive, small. (Great.) Livelihood, living, maintenance, subsistence, support. Lively, jocund, merry, sportive, sprightly, vivacious. (Slow, languid, sluggish.) Long, extended, extensive. (Short.) Look, appear, seem. Lose, miss, forfeit. (Gain.) Loss, detriment, damage, deprivation. (Gain.) Loud, clamorous, high-sounding, noisy. (Low, quiet.) Love, affection, (Hatred.) Low, abject, mean. (Noble.) Lunacy, derangement, insanity, mania, madness. (Sanity.) Lustre, brightness, brilliancy, splendor. Luxuriant, exuberant. (Sparse.)

MACHINATION, plot, intrigue, cabal, conspiracy. (Artlessness.) Mad, crazy, delirious, insane, rabid, violent, frantic. (Sane, rational, quiet.) Madness, insanity, fury, rage, frenzy. Magisterial, august, dignified, majestic, pompous, stately. Make, form, create, produce. (Destroy.) Malediction, anathema, curse, imprecation, execration. Malevolent, malicious, virulent, malignant. Malice, spite, rancor, ill-feeling, grudge, animosity, ill-will. (Benevolent.) (Benignity.) Malicious, see malevolent. Manacle, v., shackle, fetter, chain. (Free.) Manage, contrive, concert, direct. Management, direction, superintendence, care, economy. Mangle, tear, lacerate, mutilate, cripple, maim. Mania, madness, insanity, lunacy. Manifest, v., reveal, prove, evince, exhibit, display, show. Manifest, a., clear, plain, evident, open, apparent, visible. (Hidden, occult.) Manifold, several, sundry, various, divers, numerous. Manly, masculine, vigorous, courageous, brave, heroic. (Effeminate.) Manner, habit, custom, way, air, look, appearance. Manners, morals, habits, behavior, carriage. Mar, spoil, ruin, disfigure. (Improve.) March, tramp, tread, walk, step, space. Margin, edge, rim, border, brink, verge. Mark, n., sign, note, symptom, token, indication, trace, vestige, track, badge, brand. Mark, v., impress, print, stamp, engrave, note, designate. Marriage, wedding, nuptials, matrimony, wedlock. Martial, military, warlike, soldier-like. Marvel, wonder, miracle, prodigy. Marvelous, wondrous, wonderful, amazing, miraculous. Massive, bulky, heavy, weighty, ponderous, solid, substantial. (Flimsy.) Mastery, dominion, rule, sway, ascendancy, supremacy. Matchless, unrivaled, unequaled, unparalleled, peer less, incomparable, inimitable, surpassing. (Common, ordinary.) Material, a., corporeal, bodily, physical, temporal, momentous, important. (Spiritual, immaterial.) Maxim, adage, apophthegm, proverb, saying, by-word, saw. Meager, poor, lank, emaciated, barren, dry, uninteresting. (Rich.) Mean, a., stingy, niggardly, low, abject, vile, ignoble, degraded, contemptible, vulgar, despicable. (Generous.) Mean, v., design, purpose, intent, contemplate, signify, denote, indicate. Meaning, signification, import, acceptation, sense, purport. Medium, organ, channel, instrument, means. Medley, mixture, variety, diversity, miscellany. Meek, unassuming, mild, gentle. (Proud.) Melancholy, low-spirited, dispirited, dreamy, sad. (Jolly, buoyant.) Mellow, ripe, mature, soft. (Immature.) Melodious, tuneful, musical, silver, dulcet, sweet. (Discordant) Memorable, signal, distinguished, marked. Memorial, monument, memento, commemoration. Memory, remembrance, recollection. Menace, n., threat. Mend, repair, amend, correct, better, ameliorate, improve, rectify. Mention, tell, name, communicate, impart, divulge, reveal, disclose, inform, acquaint. Merciful, compassionate, lenient, clement, tender, gracious, kind. (Cruel.) Merciless, hardhearted, cruel, unmerciful, pitiless, remorseless, unrelenting. (Kind.) Merriment, mirth, joviality, jollity, hilarity. (Sorrow.) Merry, cheerful, mirthful, joyous, gay, lively, sprightly, hilarious, blithe, blithesome, jovial, sportive, jolly (Sad.) Metaphorical, figurative, allegorical, symbolical. Method, way, manner, mode, process, order, rule, regularity, system. Mien, air, look, manner, aspect, appearance. Migratory, roving, strolling, wandering, vagrant. (Settled, sedate, permanent.) Mimic, imitate, ape, mock. Mindful, observant, attentive, heedful, thoughtful. (Heedless.) Miscellaneous, promiscuous, indiscriminate, mixed. Mischief. injury, harm, damage, hurt, evil, ill. (Benefit.) Miscreant. caitiff, villain, ruffian. Miscrable, unhappy, wretched, distressed, afflicted (Happy.) Miserly, stingy, niggardly, avaricious, griping. Misery, wretched-

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ness, woe, destitution, penury, privation, beggary. (Happiness.) Misfortune, calamity, disaster, mishap, catastrophe. (Good luck.) Miss, omit, lose, fail, miscarry. Mitigate, alleviate, relieve, abate, diminish. (Aggravate.) Moderate, temperate, abstemious, sober, abstinent. (Immoderate.) Modest, chaste, virtuous, bashful, reserved. (Immodest.) Moist, wet, damp, dank, humid. (Dry.) Monotonous, unvaried, dull, tiresome, undiversified. (Varied.) Monstrous, shocking, dreadful, horrible, huge, immense. Monument, memorial, record, remembrancer, cenotaph. Mood, humor, disposition, vein, temper. Morbid, sick, ailing, sickly, diseased, corrupted. (Normal, sound.) Morose, gloomy, sullen, surly, fretful, crabbed, crusty. (Joyous.) Mortal, deadly, fatal, human. Motion, proposition, proposal, movement. Motionless, still, stationary, torpid, stagnant. (Active, moving.) Mount, arise, rise, ascend, soar, tower, climb, scale. Mournful, sad, sorrowful, lugubrious, grievous, doleful, heavy. (Happy.) Move, actuate, impel, induce, prompt, instigate, persuade, stir, agitate, propel, push. Multitude, crowd, throng, host, mob, swarm. Murder, v., kill, assassinate, slay, massacre, despatch. Muse, v., meditate, contemplate, think, reflect, cogitate, ponder. Music, harmony, melody, symphony. Musical, tuneful, melodious, harmonious, dulcet, sweet. Musty, stale, sour, fetid. (Fresh, sweet.) Mute, dumb, silent, speechless. Mutilate, maim, cripple, disable, disfigure. Mutinous, insurgent, seditious, tumultuous, turbulent, riotous. (Obedient, orderly.) Mutual, reciprocal, interchanged, correlative. (Sole, solitary.) Mysterious, dark, obscure, hidden, secret, dim, mystic, enigmatical, unaccountable. (Open,

clear.) Mystify, confuse, perplex, puzzle. (Clear, explain.)

NAKED, nude, bare, uncovered, unclothed, rough, rude, simple. (Covered, clad.) Name, v., denominate, entitle, style, designate, term, call, christen. Name, n., appellation, designation, denomination, title, cognomen, reputation, character, fame, credit, repute. Narrate, tell, relate, detail, recount, describe, enumerate, rehearse, recite. Nasty, filthy, foul, dirty, unclean, impure, indecent, gross, vile. Nation, people, community, realm, state. Native, indigenous, inborn, vernacular. Natural, original, regular, normal, bastard. (Unnatural, forced.)
Near, nigh, neighboring, close, adjacent, contiguous, intimate. (Distant.) Necessary, needful, expedient, essential, requisite, indispensable. (Useless.) cessitate, v., compel, force, oblige. Necessity. need, occasion, exigency, emergency, urgency, requisite. Need, n., necessity, distress, poverty, indigence, want, penury. Need, v., require, want, lack. Neglect, v., disregard, slight, omit, overlook. Neglect, n., omission, failure, default, negligence, remissness, carelessness, slight. Neighborhood, environs, vicinity, nearness, adjacency, proximity. Nervous, timid, timorous, shaky. New, fresh, recent, novel. (Old.) News, tidings, intelligence, information. Nice, exact, accurate, good, particular, precise, fine, delicate. (Careless, coarse, unpleasant.) Nimble, active, brisk, lively, alert, nne, delicate. (Careless, coarse, unpleasant.) Nimble, active, brisk, lively, alert, quick, agile, prompt. (Awkward.) Nobility, aristocracy, greatness, grandeur, peerage. Noble, exalted, elevated, illustrious, great, grand, lofty. (Low.) Noise, cry, outcry, clamor, row, din, uproar, tumult. (Silence.) Nonsensical, irrational, absurd, silly, foolish. (Sensible.) Notable, plain, evident, remarkable, signal, striking, rare. (Obscure.) Note, s., token, symbol, mark, sign, indication, remark, comment. Noted, distinguished, remarkable, eminent, renowned. (Obscure.) Notice, s., advice, notification, intelligence, information. Notice, v., mark, note, observe, attend to, regard, heed. Notify, v., publish, acquaint, apprise, inform, declare. Notion, conception, idea, belief, opinion, sentiment. Notorious, conspicuous, open, obvious, ill-famed. (Unknown.) Nourish, nurture. torious, conspicuous, open, obvious, ill-famed. (Unknown.) Nourish, nurture, cherish, foster, supply. (Starve, famish.) Nourishment, food, diet, sustenance, nutrition. Novel, modern, new, fresh, recent, unused, strange, rare. (Old.) Noxious, hurtful, deadly, poisonous, deleterious, baneful. (Beneficial.) Nullify, annul, vacate, invalidate, quash, cancel, repeal. (Affirm.) Nutrition, food, diet, nutriment, nourishment.

OBDURATE, hard, callous, hardened, unfeeling, insensible. (Yielding, tractable.) Obedient, compliant, submissive, dutiful, respectful. (Obstinate.) Obese. corpulent, fat, adipose, fleshy. (Attenuated.) Obey, v., conform, comply, submit. (Rebel, disobey.) Object, s., aim, end, purpose, design, mark, butt. Object. v., oppose, except to, contravene, impeach, deprecate. (Assent.) Obnoxious. offensivc. (Agreeable.) Obscure, undistinguished, unknown. (Distinguished.)

Obstinate, contumacious, headstrong, stubborn, obdurate. (Yielding.) Occaslon, opportunity. Offense, affront, misdeed, misdemeanor, transgression, trespass. Offensive, insolent, abusive, obnoxious. (Inoffensive.) Office, charge, function, place. Offspring, issue, progeny. Old, aged, superannuated, ancient, antique, antiquated, obsolete, old-fashioned. (Young, new.) Omen, presage, prognostic. Opaque, dark. (Bright, transparent.) Open, candid, unreserved, clear, fair. (Hidden, dark.) Opinion, notion, view, judgment, belief, sentiment. Opinionated, conceited, egoistical. (Modest.) Oppose, resist, withstand, thwart. (Give way.) Option, choice. Order, method, rule, system, regularity. (Disorder.) Origin, cause, occasion, beginning, source. (End.) Outlive, survive. Ou.ward, external, outside, exterior. (Inner.) Over, above. (Under.) Overbalance, outweigh, preponderate. Overbear, bear down, overwhelm, overpower, subdue. Overbearing, haughty, arrogant, proud. (Gentle.) Overflow, inundation, deluge. Overrule, supersede, suppress. Overspread, overrun, ravage. Overturn, invert, overthrow, reverse, subvert. (Establish, fortify.) Overwhelm, crush, defeat, vanquish.

PAIN, suffering, qualm, pang, agony, anguish. (Pleasure.) Pallid, pale, wan. (Florid.) Part, division, portion, share, fraction. (Whole.) Particular, exact, distinct, odd, singular, strange. (General.) Patient, passive, submissive, meek. (Obdurate.) Peace, calm, quiet, tranquillity. (War, riot, trouble, turbulence.) Peaceable, pacific, peaceful, quiet. (Troublesome, riotous.) Penetrate, bore, pierce, perforate. Penetration, acuteness, sagacity. (Dullness.) People, nation, persons, folks. Perceive, note, observe, discern, distinguish. Perception, conteption, notion, idea. Peril, danger, pitfall, snare. (Safety.) Permit, allow, tolerate. (Forbid.) Persuade, allure, entice, prevail upon. Physical, corporeal, bodily, material. (Mental.) Picture, engraving, print, representation, illustration, image. Pitagus delegal proful rustul. (Lorful.) Pitless illustration, image. Piteous, doleful, woful, rueful. (Joyful.) Pitiless, see merciless. Pity, compassion, sympathy. (Cruelty.) Place, n., spot, site, position, post, situation, station. Place, v., order, dispose. Plain, open, manifest, evident. (Secret.) Play, game, sport, amusement. (Work.) Please, gratify, pacity. (Displease.) Pleasure, charm, delight, joy. (Pain.) Plentiful, abundant, ample, copious, plenteous. (Scarce.) Poise, balance. Positive, absolute, peremptory, decided, certain. (Negative.) Possessor, owner, master, proprietor. Possible, practical, practicable. (Impossible.) Poverty, penury, indigence, need, want. (Wealth.) Power, authority, force, strength, dominion. Powerful, mighty, potent. (Weak.) Praise, commend, extol, laud. (Blame.) Prayer, entreaty, petition, request, suit. Pretense, n., pretext, subterfuge. Prevailing, predominant, prevalent, general. (Isolated, sporadic.) Prevent, v., obviate, preclude. Previous, antecedent, introductory, preparatory, preliminary. (Subsequent.) Pride, vanity, conceit. (Humility.) Principally, chiefly, essentially, mainly. Principle, ground, reason, motive, impulse, maxim, rule, rectitude, integrity. Privilege, immunity, advantage, favor, prerogative, exemption, right. claim. Probity, rectitude, uprightness, honesty, integrity, sincerity, soundness. (Dishonesty.) Problematical, uncertain, doubtful, dubious, questionable, disputable, suspicious. (Certain.) Prodigious, huge, enormous, vast, amazing, astonishing, astounding, surp. ing, remarkable, wonderful. (Insignificant.) Profession, business, trade, occupation, vocation, office, employment, engagement, avowal. Proffer, volunteer, offer, propose, tender. Profligate, abandoned, dissolute, depraved, vicious, degenerate, corrupt, demoralized. (Virtuous.) Profound, deep, fathomless, penetrating, solemn, abstruse, recondite. (Shallow) Profuse, extravagant, prodigal, lavish, improvident, excessive, copious, plentiful. (Succinct.) Prolific, productive, generative, fertile, fruitful, teeming. (Barren.) Prolix, diffuse, long, prolonged, tedious, tiresome, wordy, verbose, prosaic. (Concise, brief.) Prominent, eminent, conspicuous, marked, important, leading. (Obscure.) Promiscuous, mixed, unarranged, mingled, indiscriminate. (Select.) Promot, see punctual. Prop. v., maintain, sustain, support, stay. Prompt, see punctual. Prop, v., maintain, sustain, support, stay. Propagate, spread, circulate, diffuse, disseminate, extend. breed, increase. (Suppress.) Proper, legitimate, right, just, fair, equitable, honest, suitable, fit, adapted, meet, becoming, befitting, decent, pertinent, appropriate. (Wrong.) Prosper, flourish, succeed, grow rich, thrive, advance. (Fail.) Prosperity, well-being, weal, weifare, happiness, good luck. (Poverty.) Proxy, agent, representative, substitute,

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delegate, deputy. Prudence, carefulness, judgment, discretion, wisdom (Indiscretion.) Prurient, itching, craving, hankering, longing. Puerile, youthful, juvenile, boyish, childish, infantile, trifling, weak, silly. (Mature.) Punctilious, nice, particular, formal, precise. (Negligent.) Punctual, exact, precise, nice, particular, prompt, timely. (Dilatory.) Putrefy, rot, decompose, corrupt, decay. Puzzle, v., perplex, confound, embarrass, bewilder, confuse, pose, mystify. (Enlighten.)

QUACK, impostor, pretender, charlatan, empiric, mountebank. (Savant.) Quaint, artful, curious, far-fetched, fanciful, odd, singular. Qualified, competent, fitted, adapted. (Incompetent.) Quality, attribute, rank, distinction. Querulous, doubting, complaining, fretting, repining. (Patient.) Question, query, inquiry, interrogatory. Quibble, cavil, evade, equivocate, shuffle, prevaricate. Quick, lively, ready, prompt, alert, nimble, agile, active, brisk, expeditious, adroit, fleet, rapid, swift, impetuous, sweeping, dashing, clever, sharp. (Slow.) Quote, note, repeat, cite, adduce.

RABID, mad, furious, raging, frantic. (Rational.) Race, course, match, pursuit, career, family, clan, house, ancestry, lineage, pedigree. Rack, agonize, wring, torture, excruciate, distress, harass. (Soothe.) Racy, spicy, pungent, smart, spirited, lively, vivacious. (Dull, insipid.) Radiance, splendor, brightness, brilliance, brilliancy, lustre, glare. (Dullness.) Radical, organic, innate, find a provided a provided and provided a fundamental, original, constitutional, inherent, complete, entire. (Superficial. In a political sense, uncompromising; antonym, moderate.) Rancid, fetid, rank, stinking, sour, tainted, reasty. (Fresh, sweet.) Rancor, malignity, hatred, hostility, antipathy, animosity, enmity, ill-will, spite. (Forgiveness.) Rank, order, degree, dignity, nobility, consideration. Ransack, rummage, pillage, overhaul, explore, plunder. Ransom, emancipate, free, unfetter. Rant, bombast, fustian, cant. Rapacious, ravenous, voracious, greedy, grasping. (Generous.) Rapt, ecstatic, transported, ravished, entranced, charmed. (Distracted.) Rapture, ecstasy, transport, delight, bliss. (Dejection.) Rare, scarce, singular, uncommon, unique. Rascal, scoundrel, rogue, knave, scamp, vagabond. Rash, hasty, precipitate, foolhardy, adventurous, heedless, reckless, careless. (Deliberate.) Rate, value, compute, appraise, estimate, chide, abuse. Ratify, confirm, establish, substantiate, sanction. (Protest, oppose.) Rational, reasonable, sagacious, judicious, wise, sensible, sound. (Unreasonable.) Ravage, overrun, overspread, desolate, despoil, destroy. Ravish, enrapture, enchant, charm, delight, abuse. Raze, demolish, destroy, overthrow, ruin, dismantle. (Build up.) Reach, touch, stretch, attain, gain, arrive at. Ready, prepared, ripe, apt, prompt, adroit, handy. (Slow, dilatory.) Real, actual, literal, practical, positive, certain, genuine, true. (Undilatory.) Real, actual, literal, practical, positive, certain, genuine, true. (Unreal.) Realize, accomplish, achieve, effect, gain, get, acquire, comprehend. Reap, gain, get, acquire, obtain. Reason, motive, design, end, proof, cause, ground, purpose. Reason, deduce, draw from, trace, infer, conclude. Reasonable, rational, wise, honest, fair, right, just. (Unreasonable.) Rebellion, insurrection, revolt. Recant, recall, abjure, retract, revoke. Recede, retire, retreat, withdraw, ebb. Receive, accept, take, admit, entertain. Reception, receiving, levee, receipt, admission. Recess, retreat, depth, niche, vacation, intermission. Recreation, sport, pastime, play, amusement, game, fun. Redeem, ransom, recover, rescue, deliver, save, free. Redress, remedy, repair, remission, abatement, relief. Reduce, abate, lessen, decrease, lower, shorten, conquer. Refined, polite, courtly, polished, cultured, genteel, purified. (Boorish.) Reflect, consider, cogitate, think, ponder, muse, censure. Reform, amend, correct, better, restore, improve. (Corrupt.) Reformation, improvement, reform, amendment. (Corruption.) Refuge, asylum, protection, harbor, shelter, retreat. Refuse, v., deny, reject, repudiate, decline, withhold. (Accept.) Refuse, s., dregs, dross, soum, rubbish, leavings, remains. Refute, disprove, falsify, negative. (Affirm.) Regard, v., mind, heed, notice, behold, view, consider, respect. Regret, s., grief, sorrow, lamentation, repentance, remorse. Regular, orderly, uniform, customary, ordinary, stated. (Irregular.) Regulate, methodize, arrange, adjust, organize, govern, rule. (Disorder.) Reimburse, refund, repay, satisfy, indemnify. Relevant, fit, proper, suitable, appropriate, pertinent, apt. (Irrelevant.) Reliance, trust, hope, dependence, confidence. (Suspicion.) Relief, succor, aid,

help, redress, alleviation. Relinquish, give up, forsake, resign, surrender, quit, leave, forego. (Retain.) Remedy, help, relief, redress, cure, specific, reparation. Remorseless, pitiless, relentless, cruel, ruthless, merciless, barbarous. (Merciful, humane.) Remote, distant, far, secluded, indirect. (Near.) Reproduce, propagate, imitate, represent, copy. Repudiate, disown, discord, disavow, renounce, disclaim. (Acknowledge.) Repugnant, antagonistic, distasteful. (Agreeable.) Repulsive, forbidding, odious, ugly, disagreeable, revolting. (Attractive.) Respite, reprieve, interval, stop, pause. Revenge, vengeance, retaliation, requital, retribution. (Forgiveness.) Revenue, produce, income, fruits, proceeds, wealth. Reverence, n., honor, respect, awe, veneration, deference, worship, homage. (Execration.) Revise, review, reconsider. Revive, refresh, renew, renovate, animate, resuscitate, vivify, cheer, comfort. Rich, wealthy, affluent, opplent, copious, ample, abundant, exuberant, plentiful, fertile, fruitful, superb, gorgeous. (Poor.) Rival, n., antagonist, opponent, competitor. Road, way, highway, route, course, path, pathway, anchorage. Roam, ramble, rove, wander, stray, stroll Robust, strong, lusty, vigorous, sinewy, stout, sturdy, stalwart, able-bodied. (Puny.) Rout, v., discomfit, beat, defeat, overthrow, scatter. Route, road, course, march way, journey, path, direction. Rude, rugged, rough, uncouth, unpolished, harsh, gruff, impertinent, saucy, flippant, impudent, insolent, churlish. (Polished, polite.) Rule, sway, method, system, law, maxim, precept, guide, formula, regulation, government, standard, test. Rumor, hearsay, talk, fame, report, bruit. Ruthless, cruel, savage, barbarous, inhuman, merciless, remorseless, relentless, unrelenting. (Considerate.)

SACRED, holy, hallowed, divine, consecrated, dedicated, devoted. (Profane.) Safe, secure, harmless, trustworthy, reliable. (Perilous, dangerous.) Sanction, confirm, countenance, encourage, support, ratify, authorize. (Disapprove.) Sane, sober, lucid, sound, rational. (Crazy.) Saucy, impertinent, rude, impudent, insolent, flippant, forward. (Modest.) Scandalize, shock, disgust, offend, calumniate, vilify, revile, malign, traduce, defame, slander. Scanty, bare, pinched, insufficient, slender, meager. (Ample.) Scatter, strew, spread, disseminate, disperse, dissipate, dispel. (Collect.) Secret, clandestine, concealed, hidden, sly, underhand, latent, private. (Open.) Seduce, allure, attract, decoy, entice, abduct, inveigle, deprave. Sense, discernment, appreciation, view, opinion, feeling, perception, sensibility, susceptibility, thought, judgment, signification, import, significance, meaning, purport, wisdom. Sensible, wise, intelligent, reasonable, sober, sound, conscious, aware. (Foolish.) Settle, arrange, adjust, regulate, conclude, determine. Several, sundry, divers, various, many. Severe, harsh, stern, stringent, unmitigated, rough, unyielding. (Lenient.) Shake, tremble, shudder, shiver, quake, quiver. Shallow, superficial, flimsy, slight. (Deep, thorough.) Shame, disgrace, dishonor. (Honor.) Shameful, degrading, scandalous, disgraceful, outrageous. (Honorable.) Shameless, immodest, impudent, indecent, indelicate, brazen. Shape, form, fashion, mold, model. Share, portion, lot, division, quantity, quota, contingent. Sharp, acute, keen. (Dull.) Shine, glare, glitter, radiate, sparkle. Short, brief, concise, succinct, summary. (Long.) 'Show, v., indicate, mark, point out, exhibit, display. Show, n., exhibition, representation, sight, spectacle. Sick, diseased, sickly, unhealthy, morbid. (Healthy.) Sickness, n., illness, indisposition, disease, disorder. (Health.) Significant, a., expressive, material, important. (Insignificant.) Signification, import, meaning, sense. Silence, speechlessness, dumbness. (Noise.) Silent, dumb, mute, speechless. (Talkative.) Simile, comparison, similitude. SImple, single, uncompounded, artless, plain. (Complex, compound.) Simulate, dissimulate, dissemble, pretend. Sincere, candid, hearty, honest, pure, genuine, real. (Insincere.) Situation, condition, plight, predicament, state, position. Size. bulk, greatness, magnitude, dimension. Slavery, servitude, enthrallment, thralldom. (Freedom.) Sleep, doze, drowse, nap, slumber. Sleepy, somnolent. (Wakeful.) Slow, dilatory, tardy. (Fast.) Smell, fragrance, odor, perfume, scent. Smooth, even, level, mild. (Rough.) Soak, drench, imbrue, steep. Social, sociable, friendly, communicative. (Unsocial.) Soft, gentle, meek, mild. (Hard.) Sollelt, importune, urge. Solitary, sole, only, single. Sorry, grieved, poor, paltry, insignificant. (Glad, respectable.) Soul, mind, spirit. (Soul is opposed to body, mind to matter.) Sound, v., healthy, sane. (Unsound.)

Sound, n., tone, noise, silence. Space, room. Sparse, scanty, thin. (Luxuriant.) Speak, converse, talk, confer, say, tell. Special, particular, specific. (General.) Spend, expend, exhaust, consume, waste, squander, dissipate. (Save.) Sporadic, isolated, rare. (General, prevalent.) Spread, disperse, diffuse, expand, disseminate, scatter. Spring, fountain, source. Staff, prop, support, stay. Stagger, reel, totter. Stain, soil, discolor, spot, sully, tarnish. State, commonwealth, realm. Sterile, barren, unfruitful. (Fertile.) Stifle, choke, suffocate, smother. Stormy, rough, boisterous, tempestuous. (Calm.) Straight, direct, right. (Crooked.) Strait, a., narrow, confined. Stranger, alien, foreigner. (Friend.) Strengthen, fortify, invigorate. (Weaken.) Strong, robust, sturdy, powerful. (Weak.) Stupid, dull, foolish, obtuse, witless. (Clever.) Subject, exposed to, liable, obnoxious. (Exempt.) Subject, inferior, subordinate. (Superior to, above.) Subsequent, succeeding, following. (Previous.) Substantial, solid, durable. (Unsubstantial.) Suit, accord, agree. (Disagree.) Superficial, flimsy, shallow, untrustworthy. (Thorough.) Superfluous, unnecessary, excessive. (Necessary.) Surround, encircle, encompass, environ. Sustain, maintain, support. Symmetry, proportion. Sympathy, commiseration, compassion, condolence. System, method, plan, order. Systematic, orderly, regular, methodical. (Chaotic.)

TAKE, accept, receive. (Give.) Talkative, garrulous, loquacious, communicative. (Silent.) Taste, flavor, relish, savor. (Tastlessness.) Tax, custom, duty, impost, excise, toll. Tax, assessment, rate. Tease, taunt, tantalize, torment, vex. Temporary, a., fleeting, transient, transitory. (Permanent.) Tenacious, pertinacious, retentive. Tendency, aim, drift, scope. Tenet, position, view, conviction, belief. Term, boundary, limit, period, time. Territory, dominion. Thankful, grateful, obliged. (Thankless.) Thankless, ungracious, profitless, ungrateful, unthankful. Thaw, melt, dissolve, liquefy. (Freeze.) Theatrical, dramatic, showy, ceremonious, meretricious. Theft, robbery, depredation, spoliation. Theme, subject, topic, text, essay. Theory, speculation, scheme, plea, hypothesis, conjecture. Therefore, accordingly, consequently, hence. Thick, dense, close, compact, solid, coagulated, muddy, turbid, misty, foggy, vaporous. (Thin.) Thin, slim, slender, slight, flimsy, lean, attenuated, scraggy. Think, cogitate, consider, reflect, ponder, contemplate, meditate, muse, conceive, fancy, imagine, apprehend, hold, esteem, reckon, consider, regard, deem, believe, opine. Thorough, accurate, correct, trustworthy, reliable, complete. (Superficial.) Thought, idea, conception, imagination, fancy, conceit, notion, supposition, care, provision, consideration, opinion, view, sentiment, reflection, deliberation. Thoughtful, considerate, careful, cautious, heedful, contemplative, reflective, provident, pensive, dreamy. (Thoughtless.) Thoughtless, inconsiderate, rash, precipitate, improvident, heedless. Tie, v., bind, restrain, restrict, oblige, secure, unite, join. (Loose.) Tie, n., band, ligament, ligature. Time, duration, season, period, era, age, date, span, spell. Tolerate, allow, admit, receive, suffer, permit, let, endure, abide. (Oppose.) Top, summit, apex, head, crown, surface. (Bottom, base.) Torrid, burning, hot, parching, scorching, sultry. Tortuous, twisted, winding, crooked, indirect. Torture, torment, anguish, agony. Touching, tender, affecting, moving, pathetic. Tractable, docile, manageable, amenable. Trade, traffic, commerce, dealing, occupation, employment, office. Traditional, oral, uncertain, transmitted. Traffic, trade, exchange, commerce, intercourse. Trammel, n., fetter, shackle, clog, bond, chain, impediment, hindrance. Tranquil, still, unruffled, peaceful, quiet, hushed. (Noisy, boisterous.) Transaction, negotiation, occurrence, proceeding, affair. Trash. nonsense, twaddle, trifles, dross. Travel, trip, ramble, peregrination, excursion, journey, tour, voyage. Treacherous, traitorous, disloyal, treasonable, faithless, false-hearted, perfidious, sly, false. (Trustworthy, faithful.) Trite, stale, old, ordinary, commonplace, hackneyed. (Novel.) Triumph, achievement, ovation, victory, conquest, jubilation. (Failure, defeat.) Trivial, trifling, petty, small, frivolous, unimportant, insignificant. (Important.) True. genuine, actual, sincere, unaffected, true-hearted, honest, upright, veritable, real, veracious, authentic, exact, accurate, correct. Tumultuous, turbulent, riotous, disorderly, disturbed, confused, unruly. (Orderly.) Tune, tone, air, melody, strain. Turbid, fxil, thick,

muddy, impure, unsettled. (Placid.) Type, emblem, symbol, figure, sign, kind, sort, letter. Tyro, novice, beginner, learner.

UGLY, unsightly, plain, homely, ill-favored, hideous. (Beautiful.) Umbrage, offence, dissatisfaction, displeasure, resentment. Umpire, referee, arbitrator, judge, arbiter. Unanimity, accord, agreement, unity, concord. (Discord.) Unanimous, agreeing, like-minded. Unbridled, wanton, licentious, dissolute, loose, lax. Uncertain, doubtful, dubious, questionable, fitful, equivocal, ambiguous, indistinct, variable, fluctuating. Uncivil, rude, discourteous, disrespectful, disobliging. (Civil.) Unclean, dirty, foul, filthy, sullied. (Clean.) Uncommon, rare, strange, scarce, singular, choice. (Common, ordinary.) Unconcerned, careless, indifferent, apathetic. (Anxious.) Uncouth, strange, odd, clumsy, ungainly. (Graceful.) Uncover, reveal, strip, expose, lay bare, divest. (Hide.) Under, below, underneath, beneath, subordinate, lower, inferior. (Above.) Understanding, knowledge, intellect, intelligence, faculty, comprehension, mind, reason, brains. Undertake, engage in, embark in, agree, promise. Undo, annul, frustrate, untie, unfasten, destroy. Uneasy, restless, disturbed, unquiet, stiff, awkward. (Quiet.) Unequal, uneven, not alike, irregular, insufficient. (Even.) Unequaled, matchless, unique, novel, new, unheard of. Unfair, wrongful, dishonest, unjust. (Fair.) Unfit, a., improper, unsuitable, inconsistent, untimely, incompetent. (Fit.) Unfit, v., disable, incapacitate, disqualify. (Fit.) Unfortunate, calamitous, ill-fated, unlucky, wretched, unhappy, miserable. (Fortunate.) Ungainly, clumsy, awkward, lumbering, uncouth. (Pretty.) Unhappy, miserable, wretched, distressed, afflicted, painful, disastrous, drear, dismal. (Happy.) Uniform, regular, symmetrical, equal, even, alike, unvaried. (Irregular.) Uninterrupted, continuous, perpetual, unceasing, incessant, endless. (Intermittent.) Union, junction, combination, alliance, confederacy, league, coalition, agreement, concert. (Disunion, separation.) Unique, unequal, uncommon, rare, choice, matchless. (Common, ordinary.) Unite, join, conjoin, combine, concert, add, attach, incorporate, embody, clench, merge. (Separate, disrupt, sunder.) Universal, general, all, entire, total, catholic. (Sectional.) Unlimited, absolute, undefined, boundless, infinite. (Limited.) Unreasonable, foolish, silly, absurd, preposterous, ridiculous. Unrivaled, unequaled, unique, unexampled, incomparable, matchless. (Mediocre.) Unroll, unfold, open, discover. Unruly, ungovernable, unmanageable, refractory. (Tractable, docile.) Unusual, rare, unwonted, singular, uncommon, remarkable, strange, extraordinary. (Common.) Uphold, maintain, defend, sustain, support, vindicate. (Desert, abandon.) Upright, vertical, perpendicular, erect, just, equitable, fair, pure, honorable. (Prone, horizontal.) Uprightness, honesty, integrity, fairness, goodness, probity, virtue, honor. (Dishonesty.) Urge, incite, impel, push, drive, instigate, stimulate, press, induce, solicit. Urgent, pressing, important, imperative, immediate, serious, wanted. (Unimportant.) Usage, custom, fashion, practice, prescription. Use, n., usage, practice, habit, custom, avail, advantage, utility, benefit, application. (Disuse, desuetude.) Use, v., employ, exercise, occupy. practise, accustom, inure. (Abuse.) Useful, advantageous, serviceable, available, helpful, beneficial, good. (Useless.) Useless, unserviceable, fruitless, idle, profitless. (Useful.) Usual, ordinary, common, accustomed, habitual, wonted, customary, general. (Unusual.) Usurp, arrogate, seize, appropriate, assume. Utmost, farthest, remotest, uttermost, greatest. Utter, a., extreme, excessive, sheer, mere, pure. Utter, v. speak, articulate, pronounce, express, issue. Utterly, totally, completely, wholly, quite, altogether, entirely.

VACANT, empty, unfilled, unoccupied, thoughtless, unthinking. (Occupied.) Vagrant, n., wanderer, beggar, tramp, vagabond, rogue. Vague, unsettled, undetermined, uncertain, pointless, indefinite. (Definite.) Vain, useless, fruitless, empty, worthless, inflated, proud, conceited, unreal, unavailing. (Effectual, humble, real.) Valiant, brave, bold, valorous, courageous, gallant. (Cowardly.) Valid, weighty, strong, powerful, sound, binding, efficient. (Invalid.) Valor, courage, gallantry, boldness, bravery, heroism. (Cowardice.) Value, v., appraise, assess, reckon, appreciate, estimate, prize, esteem, treasure. (Despise, condemn.) Vanish, disappear, fade. melt, dissolve. Vanity, emptiness, conceit, self-conceit, affectedness. Vapid, dull, flat, insipid, stale, tame. (Sparkling.) Vapor, fume,

smoke, mist, fog, steam. Variable, changeable, unsteady, inconstant, chifting, wavering, fickle, restless, fitful. (Constant.) Variety, difference, diversity, change, diversification, mixture, medley, miscellany. (Sameness, monotony) Vast, spacious, boundless, mighty, enormous, immense, colossal, gigantic, huge, prodigious. (Confined.) Vaunt, boast, brag, puff, hawk, advertise, flourish, parade. Venerable, grave, sage, wise, old, reverend. Venlal, pardonable, excusable, justifiable. (Grave, serious.) Venom, poison, virus, spite, malice, malignity. Venture, n., speculation, chance, peril, stake. Venture, v., dare, adventure, risk, hazard, jeopardize. Veracity, trath, truthfulness, credibility, accuracy. (Falsehood.) Verbal, oral, spoken, literal, parole, unwritten. Verdict, judgment, finding, decision, answer. Vexation, chagrin, mortification. (Pleasure) judgment, finding, decision, answer. Vexation, chagrin, mortification. (Pleasure) Vibrate, oscillate, swing, sway, wave, undulate, thrill. Vice, vileness, corruption, depravity, pollution, unmorality, wickedness, guilt, iniquity, crime. (Virtue.) Vicious, corrupt, depraved, debased, bad, contrary, unruly, demoralized, profligate, faulty. (Virtuous, gentle.) Victim, sacrifice, food, prey, sufferer, dupe, gull. Victuals, viands, bread, meat, provisions, fare, food, repast. View, prospect, survey. Violent, boisterous, furious, impetuous, vehement. (Gentle.) Virtuous, upright, honest, moral. (Profligate.) Vision, apparition, ghost, phantom, spectre. Voluptuary, epicure, sensualist. Vote, suffrage, voice. Vouch, affirm, asseverate, assure, aver.

WAIT, await, expect, look for, wait for. Wakeful, vigilant, watchful. (Sleepy.) Wander, range, ramble, roam, rove, stroll. Want, lack, need. (Abindance.) Wary, circumspect, cautious. (Foolhardy.) Wash, clean, rinse, wet, moisten, stain, tint. Waste, v., squander, dissipate, lavish, destroy, decay, dwind!c, wither. Wasteful, extravagant, profligate. (Economical.) Way, method, plan, system, means, manner, mode, form, fashion, course, process, road, route, track, path, habit, practice. Wave, breaker, billow, surge. Weak, feeble, infirm. (Strong.) Weaken, debilitate, ensceble, enervate, invalidate. (Strengthen.) Wearisome, Weaken, debilitate, enseeble, enervate, invalidate. (Strengthen.) Wearisome, tedious, tiresome. (Interesting, entertaining.) Weary, harass, jade, tire, fatigue. (Refresh.) Weight, gravity, heaviness. (Lightness.) Weight, burden, load. Well-being, happiness, prosperity, welfare. Whole, entire, complete, total, integral. (Part.) Wicked, iniquitous, nefarious. (Virtuous.) Will, wish, desire. Willingly, spontaneously, voluntarily. (Unwillingly.) Win, get, obtain, gain, procure, effect, realize, accomplish, achieve. (Lose.) Winning, attractive, charming, fascinating, bewitching, enchanting, dazzling, brilliant. (Repulsive.) Wisdom, prudence, foresight, far-sightedness, sagacity. (Foolishness.) Wit, humor, satire, fun, raillery. Wonder, v., admire, amaze, astonish, surprise. Wonder, n., marvel, miracle, prodigy. Word, n., expression, term. Work, labor, task, toil. (Play.) Worthless, valueless. (Valuable.) Writer, author, penman. Wrong, injustice, injury. (Right.)

YAWN, gape, open wide. Yearn, hanker after, long for, desire, crave. Yell, bellow, cry out, scream. Yellow, golden, saffron-like. Yelp, bark, sharp cry, howl. Yet, besides, nevertheless, notwithstanding, however, still, ultimately, at howl. Yet, besides, nevertheless, notwithstanding, however, still, ultimately, at last, so far, thus far. Yield, bear, give, afford, impart, communicate, confer, bestow, abdicate, resign, cede, surrender, relinquish, relax, quit, forego, give up, let go, waive, comply, accede, assent, acquiesce, succumb, submit. Yielding, supple, pliant, bending, compliant, submissive, unresisting. (Obstinate.) Yoke, v, couple, link, connect. Yore, long ago, long since. Young, juvenile, inexperienced, ignorant, youthful. Youth, boy, lad, minority, adolescence, juvenility. Youthful, young, juvenile, boyish, girlish, puerile. (Old.)
ZEAL, energy, fervor, ardor, earnestness, enthusiasm, eagerness. (Indifference.)

Zealous, warm, ardent, fervent, enthusiastic, anxious. (Indifferent, careless.) Zest, relish, gusto, flavor. (Disgust.)

LEAD in the form of filings, under a pressure of 2,000 atmospheres, or thirteen tons to the square inch, becomes compressed into a solid block, in which it is impossible to detect the slightest vestige of the original grains Under a pressure of 5,000 atmospheres it liquifies.

THE WORLD AND THE UNIVERSE.

Facts Astronomical, Geographical, Historical and Statistical.

CCORDING to the System of Copernicus (b. 1473), the Sun was regarded as the center of the universe. The planets, Mercury, Venus, the Earth, Mars, Jupiter, and Saturn, revolved round it in circular orbits; the Moon was a satellite of the Earth, spun round it as a center, and accompanied it on its annual rotation round the Sun. Since then this view has been firmly established in its main principles, but it is now known that the Sun itself moves steadily toward the constellation Hercules, and that it is by no means the largest body in the universe. The Solar System is known to consist of a central Sun, round which all the other members revolve. These consist of eight primary planets, viz.: Mercury, Venus, the Earth, Mars, Jupiter, Saturn, Uranus, and Neptune; twenty secondary planets, satellites, or attendants upon the planets, of which the Earth has one, Mars two, Jupiter four, Saturn eight, Uranus four, and Neptune one; a number of minor planets or asteroids situated between Mars and Jupiter, of which 271 are known; several comets, and a great number of small meteoric bodies.

In their broad general features the planets are all alike. The ball or globe-like form is peculiar to all of them, they are all dark bodies, deriving light and heat from the sun, and consequently they all reflect the same borrowed light. In common, they all perform two motions, the one a spinning or rotatory motion on an axis, the other a motion of translation, which whirls them round the sun. Both these motions are from west to east, and the orbits which they describe round the sun are not circular, as represented by the Copernican System, but assume more

the form of an oval or ellipse.

SOME ELEMENTS OF THE PLANETARY SYSTEM.

Names of the Planets.	Diameter in miles.	Periodic Dis. from the time. Days. Sun. Miles.		Revolves on its Axis.		Moves in its Or- bit per hour.		
Mercury	3,200	88	37	Mill.	24 h.	5 m	110,000	Miles
Venus	7,700	224.7	69	66	23 h.	21 m	83,000	66
Earth	7,916	3651/4	95	"	23 h.	56 m	68,000	6.
Mars	4,200	687	145	86	24 h.	39 m	54,000	66
Jupiter	88,000	4,3321/2	494	66	9 h.	56 m	30,000	66
Saturn.	75,000	10,759	906	66	10 h.	29 m	22,000	66
Uranus	35,000	30,687	1,822	66	Unkn	own	15,000	66
Neptune	38,000	60,127	2,853	66	66		12,000	66
Moon		Dist. from Earth, 238,000 miles.					2,280	66
Sun		1,400,000 t	Unknown.					

THE WORLD AND THE UNIVERSE.

The circumference of the earth is measured in this way: Suppose two astronomers, A and B, stationed on the same meridian, a certain distance apart, and with accurate instruments, should make careful observations on a certain star at the moment it crossed the meridian; and A should find the star 16 degrees south of the zenith, and B, who is exactly 415 miles south of A, should find it only 10 degrees south of the zenith; there would then be a difference of 6 degrees between the two places; and as they are 415 miles apart, one degree must be 1-6th of 415 or 69 1-6th miles.

Now, if I degree, which is the 360th part of the earth's circumference, is 69 I-6th miles, the whole circumference must be 360 times 69 I-6th, or 24,900 miles.

It is in this manner that the earth's magnitude is computed

very accurately.

THE NEBULAR HYPOTHESIS, now generally accepted by scientists as explaining, as far as possible by human conception, the genesis of the heavenly bodies, was first suggested by Herschel, and developed by Laplace. It assumes that the solar system was once an enormous mass of gaseous substance. Rapid rotation being set up in this gaseous mass, it took the form of a disc, and at last, centrifugal force overcoming cohesion, whole rings and fragments flew off from this disc, and by centripetal force contracted into spheroid masses. As in the original mass, the velocity of the outer circle of each body thrown off is greater than the inner circle, and this causes each spheroid to revolve on its own axis. This process goes on, and the central mass continues to cool and shrink, until we have at last a central body with a number of smaller spheroidal bodies revolving around it in orbits the smaller the nearer they are to the central orb. Certain points are assumed in this hypothesis to explain the distribution of matter in our solar system. It is assumed that in the throwing off of great masses from the central disk, immense quantities of minute particles were also thrown, which continued to revolve, in the same plane with the large mass, around the center body. By slow degrees these minute atoms, by the law of gravitation, were aggregated into the mass nearest to them. These subordinate aggregations would form with most difficulty nearest the large central mass, because of the superior attractive force of the latter, wherefore the interior planets—Mercury, Venus, the Earth, Mars—are smaller than the two great orbs in the zone beyond them. These two enormous planets, Jupiter and Saturn, occupy the space where conditions are most favorable to subordinate aggregations, but, beyond them, the gravity of aggregating material becomes reduced, and so the planets found in the

THE WORLD AND THE UNIVERSE.

outer zone, Uranus and Neptune, are smaller than the planets of the middle zone.

Our Globe and Its Inhabitants.

The three primary divisions of man, as indicated by Latham,

are the Indo-European, the Mongolian, and the African.

I. THE INDO-EUROPEAN OR CAUCASIC race originally extended from India across Europe, and increasing ever in civilization and intellectual power from age to age, has become the dominant one in the world, extending its influence to every part of the earth, supplanting many inferior races, and repeopling wide areas, as in America and Australia.

The Caucasic race comprises two principal branches—the Aryan and the Semitic. A third branch, according to M. de Quatrefages, includes the Caucasians proper, Euscarians (Basques), and others.

Most of the inhabitants of Europe belong to the Aryan Family; they are arranged

in the following groups:

- 1. The Keltic, in the N. W., comprising the Welsh, Gaels, Erse, Manx, and
- 2. The Italic, chiefly in the S. W. and S., comprising the Italians and other Ro-

mance nations—French, Spanish, Portuguese, Roumanesch, and Roumanians.

3. The Thraco-Hellenic, in the S. E., Greeks and Albanians.

4. The Teutonic, in the N. N. W., and center, comprising the Germans, Scandinavians, Danes, Icelanders, Dutch, Flemings, English.

5. The Lithuanian, S. E. of the Baltic.
6. The Slavonic, in the E., comprising the Russians, Poles, Tsekhs, Serbs, Croats

Bulgarians, etc.

The Indo European or Caucasic race in Asia comprises the Hindus, Baluchis, Afghans, Iranians (Persia), Galchas (Zarafshan), and the Semitic tribes of Armenia, Syria, Arabia, etc.

II. THE MONGOLIAN is divisible into three branches, according to geo-

graphical position, which again form numerous smaller families.

1. The Asiatic, comprising the Mongolians of the Chinese Empire, India, and Indo-China; the Kalmucks, adjoining the Turks, who extend from Southern Europe far into Central Asia; The Magyars of Hungary; the Yakuts and Samoeids (or Samoyedes) of Siberia; with the Lapps, Finns, and various tribes of East Europe.

2. The Oceanic Mongolians are composed of two classes. I. The black-skinned found in New Guinea, Australia, Tasmania, and the islands between New Zealand and New Caledonia. II. The yellow, olive or brown race, occupying New Zealand, the Malay Peninsula, Sumatra, Borneo, Java, Moluccas, Philippines, Madagassar, etc.

3. The American Mongolians comprise a large number of tribes, the chief of which in North America are—the Athabaskans, Algonkins, Sioux, Paducas, and Mexicans. In South America the Quichuas, Chilians, and Patagonians extend along the west coast. The Caribs, Maypures, Brazilians, Moxos, and Chiquitos occupy the north, east, and center of the continent. The Eskimos form a connecting link between the Asiatic and American branches of this family.

III. THE AFRICAN, forming the third great division of the human race, is exhibited in its purest form by the natives of Western Africa. The Negroes occupy the whole central portion of the country from Cape Verd on the west to Khartoom on the east, and south to the Congo. South of the Negroes are the Bantus (including the Kafirs), inhabiting the greater part of Africa between the 4th parallel of N. lat. and the Cape. In the S. W. are the Hottentots. Certain dwarfish tribes are found in different parts of the continent, as the Ruchman of the Kalabari Desert, the Obergo of the Ogowe basin, and others. The Fulas and Nubas occupy parts of the Soudan; the former, in the N. W., extend from the Senegal and Niger towards Lake Tchad; the latter are found in Nubia, Kordofan, Darfur, etc. The Gallas, Copts, Somali, of the Sahara, Egypt, and East Africa; the Abyssinians; and the Berbers, Kabyles, Tuareks and other tribes of North Africa, belong to the Hamitic race, which is closely allied to the Semitic race. The latter is represented by the Arabs of the N. coast, and of the Arabian Peninsula, and by the Tigres and other tribes or Abyssinia.

THE CREAT NATIONS OF THE WORLD.

THE BRITISH EMPIRE.

Area, 11,288,277 square miles; population (1900), 395,152,105. Government, a limited monarchy; the king is represented by a prime minister and his cabinet, and the legislative authority is vested in Parliament, which consists of an hereditary House of Lords, in which also sit bishops, life peers elected in Ireland, and scotch peers elected for duration of Parliament, in all (1901) 592; and a House of Commons elected by the people of the United Kingdom, numbering 670.

UNITED KINGDOM.

UNITED KINGDOM. This part of the British empire consists strictly of England, Wales, Scotland and Ireland. There are also in the British Isles 91 other islands, 224 of which are uninhabited. The Channel Islands, the Isle of Man, and the Isle of Wight have special ancient governments of their own.

Population (1901): England, 30,805,466; Wales, 1,720,609; Scotland.

4,471,957; Ireland, 4,456546; Total 41,454.578.
Religion.—England and Wales: The Established Church (Protestant Episcopal), 1,974,629 communicants; Dissenting Protestants, about 1,800,000; Jews, 120,000; Roman Catholics, 1,500,000. Scotland: Church of Scotland (Presbyterian), 661,629 communicants; United Free Church, 488,795; Espiscopal Church, 121,796; Roman Catholic, 365,000. Ireland: Roman Catholic, 3,310,028 adherents; Protestant Episcopal, 579,385; Presbyterians, 443,494; Methodists, 61,255.

Education.—There are 12 universities, Oxford (3,481 students), Cambridge (2,958), London University (7,335 candidates for examination in 1901, 3.880 successful), Durham (590), Victoria (2,304, besides 792 evening students), Birmingham (677), University of Wales (1,428, besides 2,350 evening students), St. Andrew's (417), Aberdeen (755), Glasgow (2,013), Edinburgh (2,929), Dublin University (976). Also numerous colleges and higher schools, and 20,000 elementary schools, with an attendance of 5,686,114.

National revenue (1901), £130,384,684; expenditures, £183,592,-264. National debt, 1901, £690,992,622. National wealth, over ten billion pounds. Army, 818,605. Navy, 118,625 men, 234 vessels. Imports, \$1.937.613,165; exports, \$2,815,833,295. Mineral products

(1900), £135,957,676. Textiles, £170,000,000.

INDIA.

INDIA. Area, 985,000 sq. miles; population, 231,080,000. Governed by Secretary of State for India (in England) and Governor General in India (who is also viceroy), the latter assisted by Council of five.

Religion.—Three-fourths of the population is Hindu, and with Mohammedans they constitute 92 per cent. The Buddhists are chiefly in Burma. Christians number 2,250,000.

Education.—In 1891, 246,546,176 could not read or write, 12,000,-000 could read and write, and 3,195,220 were in schools. There were in 1900, 150,569 schools, with 4,462,844 pupils, and five universities, with about 7,500 students.

Revenue, \$328,955,934; expenditures, \$316,103,507. Debt, \$1,031,603,-705. Production chiefly agriculture, especially rice; also wheat and other grains, sugar, tea, cotton, oil, seeds, indigo, and to-bacco. Exports, \$405,000,000; imports, \$350,000,000.

CANADA.

CANADA.—Area, 3,653,946 square miles, of which 3,048,711 is land area. Population (census March 31, 1901), is 5,338,883, as against 4,833,239 in 1891.

Government.—Governor-General (Earl of Minto) appointed by the crown, assisted by council of which premier is Sir Wilfrid Laurier (1902); and parliament consisting of 81 life senators and house of commons numbering 213.

Religion.—There is no State Church in the whole of British North America. The Church of England is governed by twenty bishops, with about 1,000 clergy; the Roman Catholic Church by one cardinal, seven archbishops, twenty-three bishops, and about 1,500 clergy; and the Presbyterian Church in Canada, with about 1,000 ministers—formed in 1875 by the union of two formerly distinct bodies—by presbyteries, synods, and an annual assembly as in the Scotch Church, with 2,358 churches and stations. The Methodists have 1,700 and the Baptists about 500 ministers. The number of members of each religious creed in the Dominion was as follows at the census of April 6, 1891:—

Roman Catholics1,992,017 Presbyterians 755,326	Congregationalists 22,157 Miscellaneaus creeds 106,739
Anglicans 646,009	No creed stated 189,355
Methodists 847,765	Tro Creed Stated 105,000
Baptists 303,839	Total4,833,239
Lutherans 63,982	

Education.—There are 18,963 schools, with 27,548 teachers, and 1,088,152 pupils; also one or more universities and colleges in each of the provinces.

General Statistics.—The total value of the imports for the year ended June 30, 1900, was \$189,622,513; exports, \$191,894,723. Net public debt, \$265,493,807. Revenue, \$51,029,994; expenditure, \$42,975,280. Tonnage of shipping entered, 7,262,721; cleared, 6,912,400. Government expenditure on railways, \$4,068,348; on canals, \$2,772,092; other public works, \$1,689,548. Paid-up capital of chartered banks, \$64,735,145; assets, \$440,348,102; liabilities, \$340,295,278. Number of postoffice savings banks, 847; depositors, 150,987; savings, \$37,507,456.

There are 28,537,000 acres of improved land, the principal product being wheat. Lumber, fisheries and mining are also important.

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AUSTRALIA.

AUSTRALIA.—Area, 2,972,573 square miles; population, 3,767,-443.

Government.—July 9, 1900, the British Parliament passed an act empowering the six provinces of Australia to form a federal union, and Jan. 1, 1901, the new commonwealth was proclaimed at Sydney, N. S. W. Its first parliament was opened May 9, 1901, by the Duke of York, heir-apparent to the British throne, acting for his father, King Edward VII.

The federal parliament is made up of a senate of thirty-six members, six from each original state, and a house of representatives of seventy-five members, apportioned as follows: New South Wales, 26; Victoria, 23; Queensland, 9; South Australia, 7; Western Australia, 5; Tasmania, 5. The king is represented by the governor-general. He and the council of seven ministers exercise the executive power.

Religion (aborigines not included): Church of England, 502.980 adherents; Roman Catholic, 286,911; Presbyterian, 109,390; Wesleyan, 87,516; other Methodist, 22,596; Congregational, 24,112; Baptist, 13,112; Lutherans, 7,950; Unitarians, 1,329; Hebrew, 5,484; others, 62,574; total, 1,123,954. The total number of clergy is 1,179.

Education.—In 1900 there were 2,745 government schools, with 5,063 teachers, and 238,382 pupils; also about 1,500 private and denominational schools; University of Sidney, with 50 professors and 583 students.

Revenue, \$145,000,000 (£29,184.385; expenditures, \$142,000,000 (£28,595,573. Debt, \$971,800,000 (£194,378,427). About 1.8 per cent of the total area was under crop in 1900-1, by far the larger part being in wheat, production of which in 1901 was over 16.000,000 bushels. Gold mining is important. Imports, \$317,852,000; exports, \$385,331,400.

GERMAN EMPIRE.

Area, 1,135,950 square miles (dependencies included, the governing states having area of 208,830 square miles); population of states, 56,345,044 (census, 1900); of dependencies, 14,687,000. Governmade ruler of the empire. The emperor is represented by an Imperial chancellor and various department secretaries acting separately, not as a cabinet. The legislative functions are vested in two bodies, the Bundesrath, consisting of 58 members appointed by the governments of the separate states for each session, and the Reichstag, numbering 397, chosen by ballot for a term of five years. The emperor has no veto on legislation passed by both these bodies.

Religion.—Protestants, 32,000,000; Roman Catholics, 18,000,000; Jews, 600,000 (estimated from last religious census, changes from year to year being slight).

Education.—Compulsory throughout Germany. Elementary schools estimated at 60,000; attending pupils 8,000,000; teachers 125,000. Also 9 technical high schools; 31 schools of agriculture; 15 schools of mining; 23 schools of art and industry; 7 public

music schools, besides naval and military schools. There are 21 universities, with over 35,000 regular students and 5,000 non-matriculated. All government officers must have a university education.

National revenue (1901), 2,311,980,000 marks; expenditure, 2,344,-586,000 marks; receipts and expenditures for 1902 are estimated to balance at 2,349,742,456 marks, the expenses including repayments to the various states of surplus revenue over 130,000,000 marks. Debt (1900), funded, 1,240,000,000 marks; unfunded 120,-000,000, largely offset by various investments. There is a war treasure fund kept at Spandau in gold uninvested, amounting to 120,000,000 marks. Army, peace footing, 580,023 men, 24,145 officers, 104,485 horses; war footing, estimated at 3,000,000. All German citizens are required to serve in the army. Navy, 28,300 officers and men, 1,300 boys, 237 vessels launched, 22 building. Agriculture—91 per cent of land productive, the farms supporting over 18,000,000 persons. Minerals (1900), value produced 1,262 million marks. Manufactures—Nearly 3,000,000 persons engaged. Total exports (1899), \$1,092,102,250; imports, \$1,445,907,000; for 1901, in marks, imports, 5,967,017,000; exports, 4,759,407,000.

FRANCE.

Area, 204,092 square miles; colonies and dependencies, 4,367,-746 square miles. Population of France (census 1901), 38,641,333; of colonies and dependencies, estimated at 51,600,000. Government, republic established 1870; President, elected for seven years, represented by President of the Council and Minister of the Interior and the cabinet which he forms. The ligislative function is vested in a Chamber of Deputies, now numbering 584, elected for four years by universal suffrage, and a Senate composed of 300 members, elected for nine years (they must be 40 years old).

Religion.—All religions are equal before the law, and any sect numbering 100,000 adherents gets a grant from the government. At present only Roman Catholics, Protestants and Jews are entitled to these grants, the Roman Catholics receiving 40,990.923 francs; Protestants, 1,495,100 francs; Jews, 206,530 francs. Numbers (estimated), 37,740,000 Roman Catholics and 690,000 Protestants.

Education.—Instruction is controlled by a minister of education. There are 84.585 (1900) public and private elementary schools, with 5,530,232 pupils, the numbers steadily decreasing since 1889. Higher education is supplied by the state and by the communes: Lycees, 110, with 51,997 pupils (1901), communal colleges 238, with 33,372 pupils. There are university faculties of five different kinds, 2 of theology, 13 of law, 7 of medicine, 15 of science, 15 of letters, and 23 other schools, with a total (1901) of 31,383 students.

Revenues (1902) estimated to be 3.597,164.082 francs; expenditures, 3.597,072.199 francs, being a trifle higher than the verified figures for 1900. Such is the budget estimate from year to year in France, but the "compte definitif" published several years

later invariably shows a deficit and the debt of France increases from year to year steadily, being in 1889, 21,251,000,000 francs, and 30,096,632,622 francs Jan. 1, 1901, or \$5,800,691,814 in U. S. currency, or \$150 per capita, the largest national debt in the world, and considerably greater than the debts of the United States, Great Britain and Germany combined. Army (1902) 589,444 men and 29,842 officers; estimated war footing (available), 2,500,000. Navy, 1,733 officers, 40,589 men (reserve 114,000 men); ships, 124, besides 162 torpedo boats and 14 submarines. The leading agricultural product is wine, amounting in 1900 to 1,513,930,000 gallons. 1mports (1899), \$903,600,000; exports, \$830,600,000.

RUSSIA.

Area of Russian Empire, 8,660,395 square miles; population (census of 1897), 129,004,514; population of Russia in Europe, including Poland, 103,671,368. Government, absolute monarchy, the sole power, executive and legislative, being vested in the Emperor or Czar. Administration of the empire is entrusted to four boards or councils, the Council of State, divided into four departments (consulted by the ministers in regard to legislation), the Ruling Senate, whose duty it is to promulgate the laws, and to act as high court of justice, the Holy Synod, charged with superintending the religious affairs of the empire, and the Committee of Ministers (of whom there are 13, and with whom are included grand dukes and other functionaries).

Religion.—The established religion is the Orthodox-Catholic, or Greek Catholic. All religions, except that of the Jews, may, however, be freely professed in the empire. It is estimated that 71 per cent of the population adheres to the Greek church, 9 per cent to the Roman Catholic, 5 per cent to the Protestant, 9 per cent to the Mohammedan, 1 per cent to the United Church and Armenians, 3 per cent Jews and 2 per cent all others. There were, in 1898, 66,146 churches public and private, with 59,063 priests and deacons.

Education.—Under Ministry of Public Instruction for the most part. Elementary schools in Russian Empire, 78,699, with 154,-652 teachers, and 4,193,594 pupils; over 1,000 middle schools, with over 250,000 pupils (exact figures not obtainable); and 9 universities, with a total of 16,497 students (Jan. 1, 1900).

Estimated revenue for 1902, 1,800,784,482 paper rubles ordinary, 1,800,000 paper rubles extraordinary; expenditures, 1,775,913,481 rubles ordinary, 170,658,495 extraordinary; in 1899, in U. S. currency, revenue, \$891,772,000; expenditures, \$921,068,000. Debt, \$3,167,320,000. Military service is obligatory on all young men reaching their 21st year; of 870,000 each year reaching their 21st year, 219,000 are taken into the active army and fleet, and the rest enrolled in the reserve. The total peace footing of the army is estimated at 1,100,000, war footing 4,600,000. Navy, 75 effective ships, besides 187 torpedo boats, 50 submarine boats projected, and other boats now building; 39,546 men. Previous to 1861, all peasants were serfs of the state, the crown, or of the nobility. In 1861 the serfs were given their freedom and the land sold

to them in consideration of 49 annual payments, each amounting to 40 million rubles. In European Russia, 36.7 per cent of the land is owned by the State and Imperial family, nearly onethird of this being unfit for cultivation, 35 per cent is owned by the peasants, 28.3 per cent by private owners and towns. The chief cereal product is rye, which is nearly double that of wheat, the total of wheat, rye, oats, barley and millet being over 2 million bushels in European Russia alone. The mineral products, especially coal and petroleum, are large. The total manufactories, mines and industrial establishments, according to the census of 1897, in European Russia alone, not including Poland, were 30,029, employing 2,098,242 work people. Exports, U. S. currency, 1899, \$313,237,000, imports, \$321,389,000.

AUSTRIA-HUNGARY.

Area.—Austria, 115,903 square miles; Hungary, 125,039 square miles. Population of Austria, census 1900, 26,150,597; Hungary. 19,092,292.

Government.—The Austrian Empire and the Hungarian Kingdom are separate and independent states, though the monarchical head of both is the same, and certain departments of state are managed in common. The legislative and executive organizations are separate. Foreign affairs are managed by a common foreign minister, military affairs by a minister of war, and the common finance by a minister of finance. The common revenue and expenditure for 1900 are estimated at \$73,659,000 each. Debt, \$1,154,791,000, incurred before 1867, since which time no joint loans have been made. Army, peace footing 1901, 26,070 officers, 338,808 men, total, 359,878; war footing, 45,238 officers, 1,8246,940 men. Navy, 34 effective ships, besides 71 torpedo boats; 18,680 men. Austro-Hungarian customs territory, exports, 1899, \$464,200,000; imports, \$395,150,000.

AUSTRIA.

AUSTRIA. The legislative functions for Austria proper, or the western part of the monarchy, are vested in the Reichsrath, consisting of an upper and lower house. The upper house is formed of princes, nobles, archbishops and bishops, and life members appointed by the Emperor-139 in 1901. The lower house consists (1902) of 425 members, whose term is six years if the parliament is not sooner dissolved by the Emperor. There is also a cabinet of ministers for the affairs of Austria alone.

Religion.—The Emperor must be a Roman Catholic. Full liberty of belief prevails. The population is divided as follows: Roman Catholics, 79.2 per cent; Greek Catholic, 11.8 per cent; Jews, 4.8 per cent; Greek Oriental, 2.4 per cent; Evangelical, 1.8 per cent; R. C. priests, 16,172; Greek Catholic, 2,649; Greek

Oriental, 475: Protestant, 279.

Education.—Elementary schools, 20,067; pupils, 3,541,675; gymnasia, 201, with 62,107 pupils, and 97 realschulen, with 28,867 pupils. There are 8 universities maintained by the state, with

a total of 1,180 professors, and 14,521 students. There are also 48 theological colleges, and 6 government technical high schools.

Revenue estimated (1902), \$337,193,291; expenditure, \$337,023,589. Debt, \$720,000,000. Of the total area, 34.6 per cent is woodland, 25 per cent pastures and meadows, 37.6 per cent arable. The largest area is given to oats, next rye, third barley, and fourth wheat, a slightly larger area to potatoes than to wheat. The largest mineral product is lignite. Persons employed in manufactures, over 3,000,000, with twice that number dependent on manufacturing industries.

HUNGARY.

HUNGARY. The Hungarian parliament consists of an upper House of Magnates (consisting in 1900 of 225 hereditary peers, 17 archdukes, 76 life peers, 42 archbishops and bishops, and a few other dignitaries), and a lower house, or House of Representatives, elected by vote of all male citizens 20 years old, now numbering 453. The executive power is in the hands of a responsible ministry.

Religion.—Of the entire population, 50.85 per cent are Roman Catholic, 15.17 per cent Greek Oriental, 19.76 per cent Evangelical, 9.64 per cent Greek Catholics, 4.18 per cent Jews. Roman Catholic priests, 5,964; Greek Catholic, 2,227; Greek Oriental, 2,648; Protestant, 3,459; Jewish clergy, 1,756.

Education.—Compulsory since 1868. In 1900, 18,455 elementary schools, 31,213 teachers, and 2,476,260 pupils; 175 gymnasia, with 3,180 teachers and 55,655 pupils; 41 realschulen, with 894 teachers and 12,853 pupils; 3 universities, with 462 professors, and 7,426

students. Also various technical and industrial schools.

Revenue, 1900, \$209,001,000; expenditures, \$208,509,000. Debt, \$904,-911,000. Of the total land, 41 per cent is arable, 23 per cent pastures and meadows, 28 per cent woods. The chief agricultural product is wheat, next to that maize or Indian corn; also potatoes and beets. Next to iron, the chief mineral product is lignite. Only about 5.25 per cent of the population are engaged in manufacturing.

ITALY.

Area, 110,646 square miles; population (census 1901), 32,449,754. The executive branch of the government is absolutely in the hands of the king; the legislative function is held conjointly by the king and a parliament composed of a Senate and a Chamber of Deputies, or Lower House. The Senate consists of royal princes and members nominated by the king for life (number unlimited). In 1901 there were 343 senators. The deputies are elected by general suffrage of the people, there being 508 in 1901. The king exercises his executive power through eleven ministers.

Religion—The established religion is nominally Roman Catholic, but the power of the church has recently been limited, and freedom of worship secured to all classes of believers. At the last religious census there were 62,000 Protestants and 38,000

Jews. Of the Roman Catholics, there were then 76,560 clergy,

with 55,263 churches and chapels.

Education—There are 51,748 public elementary schools, with 2,444,288 pupils, or, including all elementary schools, 2,637,000. There are also 116 lyceums with 10,675 pupils; 183 gymnasiums. 25,551 pupils; 54 technical institutes, 10,382 pupils; technical schools, 184, with 24,649 pupils; 18 mercantile marine schools, with 926 pupils. There are 21 universities, with 962 instructors and 22,475 students.

Revenue (1901-2), 1,811,509 lire, or \$360,000,000; expenditures, 1.790,779 lire, or \$356,000,000. Debt (1899), \$2,583,983,780. Army (1900), 263,684 under arms, 811,948 available, and 3,308,650 nominal war footing. Navy, 57 effective ships besides 182 torpedo boats; 1,779 officers, 23,796 men, total 25,575. Of the total area, over 70 per cent is productive, but agriculture is in a primitive condition. Chief cereal product is wheat, second maize or Indian corn; also wine and olive oil. Over 10,000,000 of population engaged in agriculture. There are 1,103 productive mines, with 67,748 workers, producing ore valued at about \$17,000,000. Imports (1899), \$301,312,237; exports, \$287,483,279, chief exports (manufactured goods) being silk, wine, and oil.

SWEDEN AND NORWAY.

The two countries of Sweden and Norway have one king, with whom is associated a joint council of state composed of both Swedes and Norwegians. Otherwise the kingdoms are separate.

SWEDEN.

SWEDEN.—Area, 172,786 square miles; population (census Dec. 31, 1900), 5,136,441. Government, limited monarchy. Royal princes are excluded from civil appointments. Legislative power vested chiefly in a Diet acting in concert with the sovereign. First Chamber is elected for nine years by provinces and municipal corporations, and numbers 150. Second Chamber consists of 230, 80 elected by towns and 150 by rural districts. The executive power is in the hands of the king, who exercises it through eleven ministers.

Religion—The king must be a Lutheran, and the Lutheran Protestant Church is recognized as the state religion. The greater part of the population is Lutheran, but there are also 44,378 dissenting Protestants, 1,390 Roman Catholics, 46 Greek Catholics, 3,402 Jews, 234 Mormons, and 313 Irvingites. Of the

Lutherans, there were 2,571 parishes.

Education—Elementary instruction compulsory; in 1899, 11,845 schools, 16,270 teachers and 741,109 pupils. Of higher schools there were, in 1900, 79 public high schools, with 17,244 pupils; 29 people's high schools, with 1,388 pupils; 13 elementary normal schools, with 1,299 pupils; 2 high and 6 elementary technical schools; 10 navigation schools, besides schools for deaf, medical schools, military schools, etc. There are two universities, with 2,000 students.

Revenue (1900), 156,143,000 crowns (about \$39,000,000); expenditures the same. Debt (1899), \$85,154,320. Army (1901), 2,217 officers, 30,385 men. Navy (wholly for coast defense), 14 armor-clads and 26 torpedo boats. Of the total area, 8.6 per cent is under cultivation and nearly half in forest. The value of cereal crops estimated at about \$60,000,000. Mining is important, the iron ore raised in 1900 being 2,607,925 tons, with 30,738 persons engaged in all kinds of mining. Imports (1899), \$80,726,100; exports, \$41,440,620. Leading exports, timber and machinery.

NORWAY.

NORWAY.-Area, 124,445 square miles; population (census of

Dec. 3, 1900), 2,239,880.

Government, limited monarchy. The constitution of Norway, called the Grundlov, vests the legislative power of the realm in the Storthing, or Great Court, the representative of the sovereign people. The king, however, possesses the right of veto over laws passed by the Storthing, but only for a limited period. The Storthing has 114 members—38 from towns, 76 from rural districts.

The executive is represented by the king, who exercises his authority through a Council of State, composed of two Minis-

ters of State and at least seven Councillors.

Religion—The Evangelical Lutheran religion is the national church and the only one endowed by the state. Its clergy are nominated by the king. All other Christian sects (except Jesuits), as well as the Jews, are tolerated, and free to exercise their religion within the limits prescribed by the law. In 1891 there were 30,685 dissenters, including 1,004 Roman Catholics, 8,187 Methodists, 4,228 Baptists, 348 Mormons, 231 Quakers.

Education is compulsory, the school age being from six and a half in towns and seven in the country to fourteen. There are 85 secondary schools; 14 public, 42 communal, 29 private. Number of pupils, 15,793. Besides these, 69 communal and private schools have 3,414 pupils more or less advanced. There were, in 1897, 6 public normal schools and 6 private, with 810 students. Christiania has a university, attended in 1899 by about 1,400 students.

Revenue (1899), \$21,457,420; expenditures, \$20,912,308 (estimated budget for 1902 a trifle larger, for 1900 about \$1,000,000 larger). Debt, \$53,211,132. Army, 30,000 men, 900 officers, with militia numbering 50,000, with 800 officers. Navy, for coast defense only, 4 modern armor-clads and 4 monitors, with 31 small boats and 24 torpedo boats; 120 officers, 700 men. Of the total area, 75 per cent is unproductive, 22 per cent forest, and 3 per cent under cultivation. Food supplies largely imported. Forty-one mining establishments, employing 2,457 workmen. Imports, \$77,871,000; exports, \$39,836,000.

SPAIN.

Area, 197,670 square miles; population (census 1897), 18,089,500. Government, constitutional monarchy. Legislative power vested

in Cortes and king. Cortes composed of Senate (180 life or hereditary members, 180 elected), and Congress (with 431 elected aeputies). Executive is exercised by the king through a Council of Ministrs.

Religion—National church is Catholic, and whole population Roman Catholic, except 6,654 Protestants, 402 Jews, 9,645 rationalists, 510 of other religions, and 13,175 religion not stated. Catholic church has about 33,000 priests and 18,564 churches.

Education—Nominally compulsory, but law is not enforced. Less than 30 per cent can read and write. About 30,000 lower schools, with 1,843,183 pupils; 9 middle institutions, with 16,000 pupils; 8 universities, with 311 professors and over 10,000 students.

Revenue, \$170,998,000; expenditures, \$174,752,000. Debt, \$1,727,994,-620. Army, 117,774 (in war, 183,972). Navy, 16 armored vessels, 60 gunboats, 27 torpedo boats; 1,002 officers, 14,000 men. Of the total area, 80 per cent is considered productive, 20 per cent under grass, and the remainder in vineyards, olive culture, fruits (20 per cent), and general agriculture or gardens. Wheat is the principal cereal. Producing mines, 2,046, with 89,066 workmen; output valued at about \$3,500,000. Imports, \$144,680,000; exports, \$183,780,000.

JAPAN.

Area, 147,655 square miles; population (census Dec. 31, 1898), 43,763,153, not including Formos and Pescadores. Government constitutional monarchy since 1889. Legislative functions vested in Mikado with consent of the Imperial Diet, composed of a House of Peers (300), and a House of Representatives (369). Executive is exercised by the Mikado, with advice and counsel of his cabinet ministers.

Religion—By the constitution absolute freedom of religious belief and practice is secured, so long as it is not prejudicial to peace and order. The chief forms of religion are—(1) Shintoism, with 11 sects; (2) Buddhism, with 16 sects and 25 creeds. There is no state religion, and no state support. In 1899—Shinto priests, 89,531; students, 525. Buddhist temples, 71,977; bonze, 106,788; students, 8,439. There are also numerous Roman Catholics, adherents of the Greek Church, and Protestants.

There-are shrines dedicated to the eminent ancestors of the Imperial House, and to meritorious subjects; these are independent of any religious sect, and some of them are supported by state or local authorities. In 1898 the shrines numbered 191,878, and the ritualists, 15,446.

Education, compulsory. There are 29.997 elementary schools with a teaching staff of 88,660, and 4.302,623 pupils. Besides these there are 1,975 middle, high, normal, special and technical schools, kindergartens and universities, with 13,086 teachers and 242,224 pupils and students.

Revenue (1902), \$138,748,501; expenditures, \$137,943,712 (these figures include receipts from Chinese indemnity and temporary expenditures amounting to more than one-third of the whole). Debt, \$251,483,625. Army, 8,046 officers, 158,214 men. The reserve

brings the grand total up to 632,007 in time of war. Navy, 32 effective ships, besides 100 torpedo boats; 30,061 officers and men. Principal agricultural products, rice, silk and tea. Considerable silver is mined, and petroleum is being developed. Manufactures of cotton and silk are rapidly increasing. Imports, \$100,200,963; exports, \$107,464,947.

CHINA.

Area of Chinese Empire, 4,234,910 square miles; population, 399,680,000 (estimated); area of China proper is 1,353,350 square miles, and population 383,000,000. Government is a monarchy; ruler Kwangsu, but Sept. 22, 1898, an edict proclaimed that the emperor resigned power to the dowager empress, Tszu-Hszi, who had acted as regent till Kwangsu came of age in 1887. Supreme direction of empire in hands of a Grand (Ta-tc'ing-hwei-tien); administration in hands of a Cabinet (Nei-ko) of four members, two Chinese, two Manchu. Under them are seven boards of government. Independent of the government and nominally above it is the Board of Public Censors (Tu-ch'a-yuen) of 40 to 50 members. One censor must be present at the meetings of each of the government boards. The Tsung-li-Yamen or Foreign Office, created in 1861, was superseded in July, 1902, by a new foreign office called the Waiwu-pu. Each province is ruled by a governor-general responsible to the emperor for the entire administration.

Religion—There are three native religions, Confucianism, Buddhism, and Taoism. Emperor is sole high priest of the nation. There is no ecclesiastical hierarchy or priesthood for the Confucian religion, which is the state religion. Bulk of the people are Buddhist. Also there are about 30,000,000 Mohammedans; 1.000.000 Roman Catholics, and 50,000 Protestants.

Education, general, though vast numbers can neither read nor write. An educated upper class alone knows the literature of the country, which constitutes the principal learning. In all important cities there are colleges for training students for degrees, and examinations are held twice in three years for the lower degree, though only sixty out of the two or three thousand candidates can be admitted. Those finally admitted to the higher degree are appointed to public office.

Revenue. about \$73,500,000; expenditures, about the same. Debt (1899), \$287,123,500. In 1901 China agreed to pay the foreign powers an indemnity for the Boxer outbreak amounting to about \$320,000,000, a gold debt payable in thirty-nine installments up to 1941. The total charge upon the debt is now about \$20,000,-600 each year. Army: The Eight Banners, nominally 300,000, really 45,000 (in garrisons in Manchuria and as Imperial Guard at Pekin), and National Army, nominally over 600,000 men, really about 35,000, with modern organization, drill and arms; also mercenary troops, etc., nominally 200,000, really about 20,000, but of no military value. The Chinese navy was nearly destroyed in the Japanese war, but a number of cruisers have since been built.

POPULATION, AREA AND CAPITALS of the Great Countries of the World.

COUNTRIES. China	Population.		
*British Empire	395.152.105	$\begin{array}{c} 4,218,401 \\ -11,712,170 \end{array}$	Peking. London.
England	32,526,075	50,840	
Wales		7,470	
Scotland	4,471,957	29,785	
Ireland	4,456,546		
Islands Europe:	• • • • •	295	
Gibraltar	26,203	2	•
Malta, etc	177,745		
Asia:	111,110	144	
India (including			
Burmah	294,266,701	1,800,258	
Ceylon	3,008.239	25,365	
Cyprus	187,000		
Aden and Socotra Straits Settlements	44,000	3,070	
Hong Kong	$\begin{array}{r} 506.577 \\ 221.441 \end{array}$	$\frac{1,500}{30 \frac{1}{2}}$	
Labuan	5,853		
British North Borneo.	150,000	31,000	
Africa:		02,000	
Cape Colony	1,766.100	276,800	
Natal and Zululand	828,500	34,700	
St. Helena	4,116	47	
Ascension	300,000		
British Guinea, Gold	300,000	1 5,000	
Coast, etc	23,455,000	339,900	
Mauritius, etc	392,500	1,063	
British South and			
East Africa	14,911,000	1,989,247	
	1,091,156	119,139	
Orange River Colony. America:	207,503	48,326	
Canada Proper		370,488	
New Brunswick		28,200	
Nova Scotia		20,907	
Manitoba	5,338,883	73,956	
British Columbia, etc.	•	383,300	
Northwest Territories.		3,257,500	
Prince Edward Island	100 000	$\frac{2,133}{49,999}$	
Newfoundland	198,000	42,200 76,000	
British Guiana British Honduras	$282,000 \\ 28,000$	7,562	
Jamaica	581,000	4,193	
Trinidad and Tobago.	205,000	1,754	
Barbados	172,000	166	
Bahamas	48,000	5,794	
Bermuda	16,000	41	
Other islands	255,000	8,742	
Australasia:	1 909 990	210 500	
New South Wales	1,362,232 $1,195,874$	310,700 $87,884$	
South Australia	362,595	903,690	
Queensland	502,892	668,497	
*These estimates of the			the British Er

*These estimates of the population and area of the British Empire include the recently acquired great possessions in Africa.

POPULATION, AREA AND CAPITALS.

Russian Empire	COUNTRIES. Western Australia Tasmania New Zealand Fiji New Guinea (British)	Population. 182,553 171,066 743,214 121,798 350,000	Sq. Miles. 975,876 26,215 104,032 7,423 88,460	Capitals.
Tutuila, Samoa 9,000 Guam 4,000 500 Guam 6,000 54 France and Colonies 65,166,967 3,250,000 France 38,641,333 184,092 Colonies 21,448,064 2,923,679 Algeria 4,790,000 184,474 Alglers. Senegal, etc. 183,237 580,000 Tunis 1,900,000 45,000 Cayenne 26,502 46,697 Cayenne. Cambodia 1,500,000 40,530 Saigon. Cochin-China 2.323,499 23,160 Tonquin 12,000,000 119,660 Hanoi. New Caledonia 62,752 7,624 Noumea. Tahiti 1,2800 462 Sahara 1,100,000 1,550,000 Madagascar 3,500,000 28,500 Antananarivo. German Empire 56,343,014 208,830 Berlin. Prussia 34,463,377 134,603 Berlin. Bavaria 61,751,513 29,282 Munich. Saxony 4,199,758 5,787 Dresden. Wurtemberg 2,081,151 7,528 Stuttgart. Baden 1,866,584 5,821 Karlsruhe. Alsace-Lorraine 1,717,451 5,600 Strasburg. Hesse 956,170 2,965 Darmstadt. Mcklenburg-Schwerin 575,140 5,137 Schwerin. Hamburg 622,530 Brunswick 372,580 1,425 Brunswick 38xe-Weimar 313,668 1,387 Weimar. Anhalt 247,603 906 Desau Saxe-Weimar 313,668 1,387 Weimar. Anhalt 247,603 906 Desau Saxe-Meiningen 214,697 953 Meiningen Saxe-Coburg-Gotha 198,717 760 Gotha. Bremen 180,443 99 Saxe-Altenburg 161,129 511 Altenburg Detmold. Gera. Mecklenburg-Strelitz 98,371 1,131 Neu Strelitz Schwarzburg-Rudolstadt 83,939 363	Russian Empire	$\begin{array}{c} 128,932,173 \\ 76,295,220 \\ \dagger 88,000,000 \\ 8,000,000 \\ 900,000 \end{array}$	8,660,395 3,602,990 3,756,884 143,000 3,600	Washington. Washington. Manila. San Juan.
Algeria	Tutuila, Samoa Guam France and Colonies France	9,000 4,000 65,166,967 38,641,333	$500 \\ 54 \\ 3,250,000 \\ 184,092$	Paris.
Cochin-China 2,323,499 23,160 Tonquin 12,000,000 119,660 Hanoi. New Caledonia 62,752 7,624 Noumea. Tahiti 12,800 462 Sahara 1,100,000 1,550,000 Madagascar 3,500,000 28,500 Antananarivo. German Empire 56,343,014 208,830 Berlin. Prussia 34,463,377 134,603 Berlin. Bavaria 6,175,153 29,282 Munich. Saxony 4,199,758 5,787 Dresden. Wurtemberg 2,081,151 7,528 Stuttgart. Baden 1,866,584 5,821 Karlsruhe. Alsace-Lorraine 1,717,451 5,600 Strasburg. Hesse 956,170 2,965 Darmstadt. Mecklenburg-Schwerin 575,140 5,137 Schwerin. Hamburg 622,530 158 Brunswick Oldenburg 2,479 Oldenburg. Saxe-Weimar 313,668 </td <td>Algeria</td> <td>$\begin{array}{c} 4,790,000 \\ 183,237 \\ 1,900,000 \\ 26,502 \\ 1,500,000 \end{array}$</td> <td>$\begin{array}{r} 184,474 \\ 580,000 \\ 45,000 \\ 46,697 \\ 40,530 \end{array}$</td> <td>St. Louis. Tunis. Cayenne.</td>	Algeria	$\begin{array}{c} 4,790,000 \\ 183,237 \\ 1,900,000 \\ 26,502 \\ 1,500,000 \end{array}$	$ \begin{array}{r} 184,474 \\ 580,000 \\ 45,000 \\ 46,697 \\ 40,530 \end{array} $	St. Louis. Tunis. Cayenne.
German Empire 56,343,014 208,830 Berlin. Prussia 34,463,377 134,603 Berlin. Bavaria 6,175,153 29,282 Munich. Saxony 4,199,758 5,787 Dresden. Wurtemberg 2,081,151 7,528 Stuttgart. Baden 1,866,584 5,821 Karlsruhe. Alsace-Lorraine 1,717,451 5,600 Strasburg. Hesse 956,170 2,965 Darmstadt. Mecklenburg-Schwerin 575,140 5,137 Schwerin. Hamburg 622,530 158 Brunswick 372,580 1,425 Brunswick. Oldenburg 341,250 2,479 Oldenburg. Saxe-Weimar 313,668 1,387 Weimar. Anhalt 247,603 906 Dessau. Saxe-Goburg-Gotha 198,717 760 Gotha. Bremen 180,443 99 Saxe-Altenburg 161,129 511 Altenburg. Lip	Tonquin	$12,000,000 \\ 62,752 \\ 12,800 \\ 1,100,000$	119,660 7,624 462 1, 550,000	Noumea.
Baden 1,866,584 5,821 Karlsruhe. Alsace-Lorraine 1,717,451 5,600 Strasburg. Hesse 956,170 2,965 Darmstadt. Mecklenburg-Schwerin 575,140 5,137 Schwerin. Hamburg 622,530 158 Brunswick 372,580 1,425 Brunswick. Oldenburg 341,250 2,479 Oldenburg. Saxe-Weimar 313,668 1,387 Weimar. Anhalt 247,603 906 Dessau. Saxe-Meiningen 214.697 953 Meiningen. Saxe-Coburg-Gotha 198,717 760 Gotha. Bremen 180,443 99 Saxe-Altenburg 161,129 511 Altenburg. Lippe 123,250 472 Detmold. Reuss (Younger line) 112,118 319 Gera. Mecklenburg-Strelitz 98,371 1,131 Neu Strelitz Schwarzburg-Rudolstadt 83,939 363 Rudolstadt	German Empire Prussia Bavaria Saxony	56,343,014 34,463,377 6,175,153 4,199,758	$\begin{array}{c} 208,830 \\ 134,603 \\ 29,282 \\ 5,787 \end{array}$	Berlin. Berlin. Munich. Dresden.
Brunswick 372,580 1,425 Brunswick Oldenburg 341,250 2,479 Oldenburg Saxe-Weimar 313,668 1,387 Weimar Anhalt 247,603 906 Dessau Saxe-Meiningen 214.697 953 Meiningen Saxe-Coburg-Gotha 198,717 760 Gotha Bremen 180,443 99 Saxe-Altenburg 161,129 511 Altenburg Lippe 123,250 472 Detmold Reuss (Younger line) 112,118 319 Gera Mecklenburg-Strelitz 98,371 1,131 Neu Strelitz Schwarzburg-Rudolstadt 83,939 363 Rudolstadt	Baden	$ \begin{array}{r} 1,866,584 \\ 1,717,451 \\ 956,170 \\ 575,140 \end{array} $	5,821 $5,600$ $2,965$ $5,137$	Karlsruhe. Strasburg. Darmstadt.
Saxe-Coburg-Gotha 198,717 760 Gotha. Bremen 180,443 99 Saxe-Altenburg 161,129 511 Altenburg. Lippe 123,250 472 Detmold. Reuss (Younger line) 112,118 319 Gera. Mecklenburg-Strelitz 98,371 1,131 Neu Strelitz. Schwarzburg-Rudolstadt 83,939 363 Rudolstadt.	Brunswick	372,580 $341,250$ $313,668$ $247,603$ 214.697	1,425 $2,479$ $1,387$ 906 953	Oldenburg. Weimar. Dessau.
Schwarzburg-Rudolstadt 83,939 363 Rudolstadt.	Saxe-Coburg-Gotha Bremen Saxe-Altenburg Lippe Reuss (Younger line)	$180,443 \\ 161,129 \\ 123,250 \\ 112,118$	$\begin{array}{c} 99 \\ 511 \\ 472 \\ 319 \end{array}$	Altenburg. Detmold. Gera.
Lubeck 76,485 115 Waldeck 56,565 433 Arolsen, Reuss 53,787 122 Greiz.	Schwarzburg-Rudolstadt Schwarzburg-Sond's's'n Lubeck	83,939 73,623 76,485 56,565	363 333 115 433	Rudolstadt. S'ndershausen. Arolsen.
Schaumburg Lippe 37,204	Schaumburg Lippe German Africa Austro-Hungarian Empire. Japan	37,204 $5,950,000$ $47,102,000$ $43,760,815$	$ \begin{array}{r} 131 \\ 822,000 \\ 201,591 \end{array} $	Buckeburg. Vienna.

POPULATION, AREA AND CAPITALS.

COUNTRIES.	Population.	Sq. Miles.	Capitais.
Netherlands	5,103,924	12,680	The Heave
	22 040 020		The Hague.
Netherlands and Colonies		778,187	The Hague.
Borneo	1,073,500	203,714	
Celebes	2,000,000	72,000	
Java	21,974,161	50,848	Dotomia
Malmana	21,514,101		Batavia.
Moluccas	353,000	42,420	Amboyna.
New Guinea	200,000	150,755	
Sumatra	2,750,000	170,744	
			Dane 2
	57,141	46,060	Paramaribo.
Turkish Empire	33,559,787	1,652,533	Constantinople
European Turkey	4,790,000	63,850	Constantinopic
Asiatic Turkey		790 170	TD1 11
Main ali	16,133,900	729,170	Tripoli.
Tripoli	1,000,000	398,873	Sofia.
Bulgaria	3,154,375	37,860	Cairo.
Egypt	9,700,000	400,000	Rome.
Thole			
Italy	32,449,754	110.665	Rome.
Italy and Colonies	34,970,785	425,765	
Abyssinia	4,500,000	189,000	
Eritrea			
Carrel C	660,000	56,100	
Somal Coast	210,000	70,000	Madrid.
Spain	17,550,216	196,173	
Spanish Africa	437,000		
Spanish Africa	407,000	203,767	Bro. A. au
Spanish Islands	• 127,172	1,957	Rio Janeiro.
Brazil	18,000,000	3,218,130	City of Mexico
Mexico	13,570,545	767,316	
Tonco	10,010,010		Seoul.
Korea	10,519,000	85,000	
Congo State	8,000,000	802,000	Teheran.
Persia	7,653,600	636,000	Lisbon.
Portugal	4,708,178	34,038	Lisbon.
Doubard Colonia		07,000	Lisbon.
Portugal and Colonies	11,073,681	951,785	
Portuguese Africa	5,416,000	841,025	
Portuguese Asia	847,503	7,923	
Sweden and Norway	7,328,797	297,321	
		170 050	01. 11.1
Sweden	5,097,402	172,876	Stockholm.
Norway	2,231,395	124,445	Kristiania.
Morocco	6,500,000	314,000	Fez.
Belgium	6,069,321	11,373	Brussels.
Delgium		000 550	
Siam	5,700,000	280,550	Bangkok.
Roumania	5,376,000	46,314	Bucharest.
Argentine Republic	4,800,000	1,095,013	Buenos Ayres
Colombia	4,600,000	331,420	
Colombia			Bogota.
Afghanistan	4,000,000	279,000	Cabul.
Chile	3,110,085	256,860	Santiago.
Peru	3,000,000	405,040	Lima.
Switzerland	3,312,551	15,981	Berne.
Bolivia	2,500,000	472,000	La Paz.
Greece	2,433,806	24,977	Athens.
Denmark	2,447,441	14,780	Copenhagen.
	2,288,193	101,403	Copenhagen.
Denmark and Colonies .			
Iceland	72,445	39,756	Rejkjavik.
Greenland	9,780	46,740	Godthaab.
West Indies	33,763	118	
	2,444,816	566,159	Caracas
Venezuela			Caracas.
Servia	2,096,043	18,757	Belgrade.
Nepaul	2,000,000	56,800	Khatmandu.
Cuba	1,600,000	41,655	Havana.
^	1,600,000	81,000	Muscat.
Guatemala	1,574,340	46,774	N. Guatemala.

POPULATION, AREA AND CAPITALS.

COUNTRIES.	Population.	Sq. miles.	Capitals.
Ecuador	1,300,000	144,000	Quito
Liberia		14,000	Monrovia.
Hayti	1,211,625	29,830	Port au Prince
Salvador	915,512	7,228	San Sanvaldor
Uruguay	840,725	72.112	Montevideo.
Khiva	700,000	22,320	Khiva.
Paraguay		145,000	Asuncion.
Honduras		42,658	Tegucigalpa.
Nicaragua		51,660	Managua.
Dominican Republic		20,596	San Domingo.
Montenegro	245,380	3,486	Cettinje.
Costa Rica		19,985	San Jose.

RELIGION IN THE UNITED STATES.

Exact figures on the members representing different churches are impossible for the reason that members are admitted at different ages in different churches; some statisticians speak of "adherents." others of "communicants," and there is great difference of opinion as to what churches should be counted, owing to schisms and minor sectarian differences. Therefore no two tables of estimates will agree. The following is believed to be a fair average, made up from the Year Book of the denominations for 1900, 1901 and 1902.

			- 4-4 2002.
			Com-
	Churches.	Ministers.	municants.
Adventists	2,641	1,614	107,953
Baptists	43.959	29,810	4,233,226
Brethren (United)	4,229	2,413	243,841
Catholics	12,062	11,636	8,610,226
Christian Scientists	600	12.000	1,000,000
Congregationalists	5,650	5,568	635,791
Disciples of Christ	10,689	6,385	1,179,541
Dowleites	50	55	40,000
Dunkards	1,123	2,993	142,787
Episcopalians (Protestant)	5,553	4,822	708,199
(Reformed)	104	103	9,743
Friends	1,083	1,443	118,421
German Evangelical	1,806	1,052	240,000
Jews	570	201	1,058,135
Lutherans	12,425	6,914	1,705,185
Mennonites	600	1,200	57 ,000
Methodists (Episcopal)	27,574	17,879	2,948,137
(Southern)	14,244	6,041	1,457,864
(Various)	14,000	14,000	1,650,000
Moravians	111	118	14,817
Mormons	1,400	3,000	350,000
Presbyterians	7.750	7,467	1,007,689
(Allied)	7.500	4,000	600,000
Reformed	2,400	1,800	370,000
Swedenborgian	173	143	7,679
Unitarians	464	555	75 ,00 0
Universalists	764	735	52 ,926

THE CENSUS OF 1900.

THE POPULATION OF THE UNITED STATES-OFFICIAL TABULATION.

The population of the United States on June 1, 1900, as shown by the official count, including Alaska, Hawaii and the Indian Territory, was 76,299,047. The following comparative table gives the figures for each State. The black figures after the name of each State show that State's rank as regards population. The changes in rank, compared with 1890, are as follows: Texas changes places with Massachusetts; Georgia with Kentucky; Wisconsin with Tennessee; North Carolina advances from 16th to 15th; New Jersey from 18th to 16th; Minnesota from 20th to 19th; Mississippi from 21st to 20th; California from 22nd to 21st; Louisiana from 25th to 23rd; Maryland from 27th to 26th; Washington from 34th to 33rd; Rhode Island from 35th to 34th; Oregon from 38th to 35th; Oklahoma from 48th to 38th; Montana from 45th to 44th. Besides those mentioned the following States fell in rank in 1900: Virginia, Alabama, Kansas, South Carolina, New Hampshire, Vermont, District of Columbia, Utah, Delaware, Nebraska and Wyoming.

STATES AND TERRITORIES	P	OPULATIO	INCREASE FROM 1890 TO 1900.	INCREASE FROM 1880 TO 1890	
	1900.	1890.	1880.	PERCENTAGE.	PERGENTAGE.
The United States	76,299,047	62,622,250	50,155,783	21.84	24.86
Alabama18	1,828,697		1 70 12 1	20 8	19.8
Alaska	63 592			98.4	4.1*
Arizona49	122,212	59,620		104 9	47.4
Arkansas25	1,311,564 1,485,053			16.2	40.5
California21	539,700			22.9	39.7
Connecticut29	908,355			30.9	19.8
Delaware46	184,735			9.6	14 9
Dist. of Columbia42	278.718			20.9	29.7
Florida32	528 542			35.0	45.2
Georgia 1 1	2,216,331			20.6	19.1
Hawaii48	154,001			71.1	
Idaho47	161,772		32 610	91.7	158.7
Illinois 3	4 821.550	3,826,351		26.0	24.3
Indiana 8	2 516,462		1,978,301	14.8	10.8
Indian Territory39	391,960			117.5	
Iowa 10	2,231,853			16 7	17.7
Kansas22	1,470,495			3 0	43.3
Kentucky12	2,147,174		1,648,690	15.5	12.7
Louisiana23	1,381,625	1,118.587		23.5	19.0
Maine30	694,466	661,086	648 936	5.0	1.9

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THE CENSUS OF 1900.

POPULATION OF THE UNITED STATES—(Continued.)

STATES AND TERRITORIES	P	OPULATION	INCREASE FROM 1890 TO 1900.	INCREASE FROM 1880 TO 1890.	
	1900.	1890.	1880.	PERCENTAGE.	PERCENTAGE.
Maryland. 26 Massachusetts. 7 Michigan. 9 Minnesota. 19 Mississippi. 20 Missouri. 5 Montana. 44 Nebraska. 27 Nevada. 52 New Hampshire. 36 New Jersey. 16 New Mexico. 45 New York. 1 North Carolina. 15 North Dakota. 41 Ohio. 4 Oklahoma. 38 Oregon. 35 Pennsylvania. 2 Rhode Island. 34 South Carolina. 24 South Dakota. 37 Tennessee. 14 Texas. 6 Utah. 43 Vermont. 40 Virginia. 17 Washington. 33 West Virginia. 28 Wisconsin. 13	1,190,050 2,805,346 2,420,982 1,751,394 1,551,270 3,106,665 243,329 1,068,539 42,335 411,588 1,883,669 195,310 7,268,012 1,893,810 319,146 4,157,545 398,331 413,536 6,302,115 428,556 1,340,316 401,570 2,020,616 3,048,710 276,749 343 641 1,854 184 518,103 958,800 2,069,042	1,042,390 2,238,943 2,093,889 1,301,826 1,289,600 2,679,184 132,159 1,058,910 45,761 376,530 1,444,933 153,593 5,997,853 1,617,947 182,719 3,672,316 61,834 313,767 5,258,014 345,506 1,151,149 328,808 1,767,518 2,235,523 207,905 332,422 1,655,980 349,390 762,794 1,686,880	1 131,116 119,565 5,082,871 1,399,750 36,909 3,198,062 174,768 4 282,891 276,531 995 577 98,268 1,542,359 1 591,749 143,963 332,286 1 512,565 75,116 618,457	14.2 25.2 15.6 34.5 20.3 16.0 84.1 0.9 7.5* 9.3 30.4 27.2 21.2 17.1 74.7 13.2 544.2 31.8 19.9 24.0 16.4 22.1 14.3 36.4 33.1 3.3 12.0 48.3 25.7 22.7	11.5 25.5 27.9 66.7 14.0 23.6 237.5 134.1 26.5* 8.5 27.7 28.5 18.0 15.6 395.1 14.8
Wyoming50 Persons in service of U.S. abroad	92,531	60,705	20,789	52.4	192.0

^{*}Decrease.

THE POPULATION OF PORTO RICO

according to the census of 1899, taken under the direction of the U.S. War Department, was 953,243, the density of population being 264 to the square mile. Of the total population 589,426 were white, and 363,817 were colored; of the latter 59,390 were negroes and 304,352 were mixed. Of the total population 792,984, or 83.2 per cent, could not read.

THE POPULATION OF CUBA

according to the census of 1899, taken by the U.S. War Department, was 1,572,797, the density of population being 35.7 per square mile. Of the total population 1,052,497 were white; 234,638 were negroes; 270,805 mixed, and 14,857 Chinese. Over one-half of those over ten years of age could neither read nor write.

POPULATION OF CITIES.

The fifteen leading cities of the United States in 1900, with their population and rank in 1900, 1890 and 1880, and their percent of increase from 1880 to 1890, and 1890 to 1900.

	1900				1890	1880		
C1TIES.	Rank.	Population.	Per Cent of Increase.	Rank.	Population.	Per Cent of Increase.	Rank.	Population.
New York	I	3,437,202	37.8	I	2,492,591	31.0	I	1,901,345
Chicago	2	1,698,575	54.4	2	1,099,850	118.5	3	503,185
Philadelphia	3	1,293,697	23.5	3	1,046,964	23.5	2	847,170
St. Louis	4	575,238	27.3	4	451,770	28.8	5	350,518
Boston	5	560,892	25.0	5	448,477	23.6	4	362,839
Baltimore	6	508.957	17.1	6	434,439	30.7	6	332,313
Cleveland	7 8	381.768	46.0	9	261,353	63.1	ΙI	160,146
Buffalo	1	352,387	37.8	10	255,664	64.8	13	155,134
San Francisco	9	342,782	14.6	7	298,997	27.7	8	233,959
Cincinnati	IO	325,902	9.7	8	296,908	16.3	7	255, 139
Pittsburg	II	321,616	34 7	12	238,617	52.5	12	156,389
New Orleans	12	287,104	18.6	II	242,039	12.0	9	216,090
Detroit	13	285,704	38.7	14	205,876	76.9	17	116,340
Milwaukee	14	285,315	39.5	15	204,468	76.8	18	115,587
Washington	15	278,718	20.9	13	230,392	29.7	IO	177,624

Cities and Towns of over 10,000 Population in 1900.

CITIES AND TOWNS.	1900.	1890.	CITIES AND TOWNS.	1900.	1890.
Alabama			New Britain	25,998	16.519
Birmingham	38,415	26,178	New Haven	108 027	81,298
Mobile	38,469	31,076		17,548	13,757
Montgomery	30,346	21,883		17,251	16,156
Alaska	0 ,0 .	, ,	Stamford	15,997	
Nome	12,486		Waterbury	45,859	28,646
Arkansas			Delaware	10, 05	
Fort Smith	11,587	11,311	Wilmington	76,508	61,431
Little Rock	38,307	25,874			
Pine Bluff	11,496	9,952	Washington	278,718	230,392
California			Florida		
Alameda	16,464	11,165		28,429	17,201
Berkeley	13,214	5,101		17,114	18,080
Fresno	12,470	10,818	Pensacola	17,747	11,750
Los Angeles	102,479	50,395	_ Tampa	15,839	5,532
Oakland	66,960	48,682			
Sacramento	29,282	26,386		10,245	8,639
Sin Diego	17,700	16,159		89 872	65,533
San Francisco	342,782	298,997		39,441	33,300
San Jose	21,500	18,060		17,614	17.303
Stockton	17,506	14,424		23,272	22,746
Colorado			Savannah	54,244	43,189
Colorado Springs.	21,085	11,140	Hawaii		
Cripple Creek	10,147		Honolulu	39,306	22,907
Denver	133 859	106,713			
Leadville	12,455	10,384	Alton	14,210	10,294
Pueblo	28,157	24,558	Aurora	24,147	19,688
Connecticut			Belleville	17,484	15,361
Ansonia	12,682		Bloomington	23,286	20,484
Bridgeport	70,996	48,866	Cairo	12,566	10 324
Danbury	16,537	16,552	Chicago		1,099 850
Hartford	79,850	53 230	Danville	16 354	11 491
Meriden	24 296	21,652	Decatur	20 754	16,841
Naugatuck	10.541		East St. Louis	29 655	15, 16

. Cities and Towns of over 10,000 Population—Continued.

CITIES AND TOWNS.	1900.	1890.	CITIES AND TOWNS.	1900.	1890.
Elgin	22,433	17,823	Kentucky		
Evanston	19,259		Covington	42 938	37 371
Freeport	13,258	10,189	Henderson	10,272	8,835
Galesburg	18,607	15,264		26,369	21,567
Jacksonville	15 078	12,935	Louisville	204,731	161,129
Joliet	29,353	23,264	Newport	28,301	24,918
Kankakee	13,595	9,025	Owensboro	13,189	9.837
LaSalle	10 446	9,855	Paducah	19,446	12,797
Moline	17,248	12,000	Louisiana		
Ottawa	10,588	9,985	Baton Rouge	11 269	10,478
Peoria	56,100	41,024	New Orleans	287,104	242,039
Quincy	36,252	31,495	Shreveport	16,013	11,979
Rockford	31 051	23,584	Maine	, 0	,,,,
Rock Island	19,493	13,634	Auburn	12.051	17.250
Springfield	34,159	24,963	Augusto	12 951 11 683	11,250
Streator	14,079	11,414	Augusta Bangor	_	10,527
Indiana	_		Biddleford	10 477	
Anderson	20,178	10,741	Lewiston	16,145 23,761	14,443
Elkhart	15,184	11,360	Portland		36,425
Elwood	12,950	2 284		50,145	30,423
Evansville	59,007	50,756	Maryland	0	
Fort Wayne	45 115	35,393	Baltimore	508,957	434,439
Hammond	12 376	5.428	Cumberland	17,128	12,729
Indianapolis	169,164	105,436	Hagerstown	13,591	10,118
Jeffersonville	10,774	10,666	Massachusetts		
Kokomo	10 609	8,261	Beverly	13,884	10,821
Lafayette	18 116	16,243	Boston	560,892	448,477
Logansport	16,204	13 328	Brockton,	40 063	27,294
Marion	17.337	8,769	Cambridge	91,886	70,028
Michigan City	14,850	10,776	Chelsea	34,072	27,909
Muncie	20,942	11,345	Chicopee	19 167	14.050
New Albany Richmond	20,628 18 226	21,059	Everett	24.336	11 068
South Bend		16,608 21,819	Fall River	104,863	74 398
Terre Haute	35,999 36,673	30,217	Fitchburg	31,531	22 037
Vincennes	10,249	8,853	Gloucester	26,121	24 651
Iowa	10,249	0,055	Haverhill	37.175	27,412
Burlington	23,201	22,565	Holyoke	45,712	35,637
Cedar Rapids	25 656	18,020	Lawrence	62 559	44 654
Clinton	22,698	13,619	Lowell	94 969	77.696
Council Bluffs	25,802	21,474	Lynn	68 513	55.727
Davenport	35,254	26,872	Malden	33 664	23,031
Des Moines	62,139	50,093	Marlboro	13 609	13,805
Dubuque	36,297	30,311	Medford	18 244	11,079
Fort Dodge	12,162	4,871	Melrose	12.962	8,519
Keokuk	14,641	14,101	New Bedford	62,442	40,733
Marshalltown	11 544	8,914	Newburyport	14 478	13.947
Muscatine	14,073	11,454	Newton	33 587	24 379
Ottumwa	18,197	14,001	North Adams	24.200	16 074
Sioux City	33,111	37,806	Northampton	18 643	14 990
Waterloo	12,580	6,674	Pittsfield	21,766	17 281
Kansas	,0	, , , ,	Quincy	23,899	16,723
Atchison	15,722	13.963	Salem	35 956	30 801
Fort Scott	10,322	11,946	Somerville	62 050	40 152
Galena	10,155	2,496	Springfield	62 059	44 179
Kansas City	51,418	38.316	Taurton	31.036	25.448
Lawrence	10,862	9,997	Woburn	23,481	18,707
Leavenworth	20,735	19.768	Worcester	I4 254	13 499
Pittsburg	10,112	6.607		118,421	84,655
Topeka	33 608	31,007	Michigan		
Wichita	24 671	23 853	Alpena	11.802	11 283
		8			

Cities and Towns of over 10,000 Population—Continued.

	104413	or over r	o,000 Formation—Co	nunuec	•
CITIES AND TOWNS.		1890.	CITIES AND TOWNS.	1900.	1890.
Ann Arbor	810 /	9,431	Kearney	10,896	***
Battle Creek	18,563	13,197	Millville	10,5:3	10,002
Bay City		27,839	Montclair	13,962	8,656
Detroit	285,704	205 876	Morristown	11,267	8,156
Flint	13,103	9,803		246,070	181,830
Grand Rapids	87,565	60 278	New Brunswick	20,006	18,603
Ishpeming	13,255	11,197	Orange	24,141	18,844
Jackson	25,180	20,798	Passaic	27,777	13,028
Kalamazoo	24,404	17,853	Paterson	105,171	78,349
Lausing	16,485	13,102	Perth Amboy	17,699	9,512
Manistee	14,260	12,812	Phillipsburg	10,052	8,644
Marquette	10,058	9,093	Plainfield	15,369	11,267
Menominee	12,818	10.630	Trenton	73,307	57,458
Muskegon	20,818	22,702	Union	15,187	10,643
Port Huron	19,158	13,543	West Hoboken	23,094	11,665
Saginaw	42,345	46,322	New York	0, ,	, 0
Sault Ste. Marie	10,538	5,760	Albany	94,151	94,923
West Bay City	13,119	12,981	Amsterdam	20,929	17,336
Minnesota			Auburn	30,345	25,858
Duluth	52,969	33,115	Binghamton	39,647	35,005
Mankato	10,599	8,838	Buffalo	352,387	255,664
Minneapolis	202,718	164,738	Cohoes	23,910	22,509
St. Paul	163 065	133,156	Corning,	11,061	8,550
Stillwater	12,318	11,260	Dunkirk	11,616	9,416
Winona	19,714	18,208	Elmira	35,672	30,893
Miss issippi			Geneva	10 433	7,557
Meridian	14,050	10,624	Glens Falls	12.613	9,509
Natchez	12,210	10,101	Gloversville	18,349	13,864
Vicksburg	14,834	13,373	Hornellsville	11,918	10,996
Missouri			Ithaca	13 136	11,079
Hannibal	12,780	12,857	Jamestown	22,892	16,038
Joplin	26,023	9,943	Johnstown	10,130	7,768
Kansas City	163,752	132,716	Kingston	24,535	21,261
St. Joseph	102,979	52,324	Lansingburg	12,595	10,550
St. Louis	575,238	451,770	Little Falls	10,381	8,783
Sedalia	15,231	14 068	Lockport	16,581	16,038
Springfield	23,267	21,850	Middletown	14,522	11,977
Montana			Mt. Vernon	20,346	10,830
Butte	30,470	10,723	Newburg	24,943	23,087
Great Falls	14,930	3,979	New Rochelle	14,720	9,057
Helena	10,770	13,834	New York3,	,437,202	1,515,301
Nebraska			Manhattan bor'ghi,	,850,093	
Lincoln	40,169	55,154	Bronx borough	200,507	
Omaha	102,555	140.452	Brooklyn,		
South Omaha	26,001	8,062	Richmond bor'gh.	67,021	
New Hampshire			Queens borough	152,999	
Concord	19,632	17,004	Niagara Falls	19.457	• • • • • • •
Dover	13,207	12,790	Ogdensburg	12.633	11,662
Manchester	56,987	44,126	Oswego	22,199	21,842
, Nashua	23,898	19,311	Peekskill	10,358	9,676
Portsmouth	10,637	9,827	Poughkeepsie	24,029	22,206
New Jersey				162,608	133,896
Atlantic	27,838	13,055	Rome	15,343	14.991
Bayonne	32,722	19,033	Saratoga Springs.	12.409	11.975
Bridgeton	13,913	11,424	Schenectady	31,682	19 902
Camden	75.935	58.313		108.374	88,143
East Orange	21,506	13,282	Troy	60,651	60,956
Elizabeth	52,130	37,764	Utica	56,383	44,007
Harrison	10,596	8,338	Watertown	21,696	14,725
Hoboken	59.364	43,648	Watervliet	14,321	12,967
Jersey City	206,433	163,003	Yonkers	47.93I	32 033

Cities and Towns of over 10,000 Population-Continued.

North Carolina Asheville	Cities and	104115		0,000 i opiniation - co		
Asheville	CITIES AND TOWNS.	1900.	1890.	CITIES AND TOWNS.	1900.	1890.
Asheville.	North Carolina			McKeesport	34,227	20,741
Charlotte		14.694	10,235	Mahanoy	13,504	11,286
Greensboro	Charlotte			Meadville		9 520
Raleigh	Greensboro			Mt. Carmel		
Wilmington	Raleigh	, , , , ,				10,044
Winston 10,008 8,078 Norristown 22,265 19,791 Akron 42,728 27,601 Ashtabula 12 949 8,388 26,185 Philadelphia 1,293 697 10,469 693 Canton 30 667 26,185 Pittsburg 321,616 238 617 Cinclinati 325,902 296,908 Pottstown 13,696 13,649 9,334 Columbus 125,560 88,150 Pottsville 15,701 14,117 Columbus 125,560 88,150 Pottsville 15,701 14,117 East Liverpool 16,485 10,936 Findlay 17,613 18 53 Hamilton 23,414 17,565 Scranton 102,026 75,215 8,661 Inontown 11,602 4,863 Manietta 13,241 10,302 Shamokin 18,202 11,493 Marietta 13,348 273 Marietta 13,348 273 Wilkinsburg 11,866 4,652 Massillon 11,944 10,092 <td>Wilmington</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Wilmington					
Ohio Akron	Winston			Norristown		19,791
Akron. 42,728 27,601 Ashtabula. 12 949 8,338 Canton. 30 667 26,189 Chillicothe. 12,976 Clincinnati. 325,902 296,908 Cleveland. 381,768 261,353 Columbus. 125,560 88,150 Dayton. 85,333 61,220 East Liverpool 16,485 10,956 Findlay. 17,613 18 553 Hamilton. 23,914 17,565 Irontown. 11,868 10,939 Linia. 21,723 15,961 Lorain. 16,028 4.863 Mansfield. 17,640 13,473 Marietta. 13,348 8.273 Marsinn 11 862 8 377 Massillon. 11,944 10,092 Newark. 18,157 42,70 Piqua. 12,172 900 Portsmouth. 17,870 12,394 Sandusky. 19,664 18,471 Springfield. 38,253 31,895 Steubenville. 14,349 13,394 Tiffin. 10,989 10,801 Toledo. 13,822 Anesville. 23,538 Oklahoma Guthrie. 10,067 Oklahoma Guthrie. 10,085 Pennsylvania Allegheny. 12,986 Allegheny. 12,986 Allentown. 35,416 Zapsondele. 13,536 Chester. 33,988 Chester. 33,986 Chester. 33,987 Chester. 33,988 Chester. 33,986 Chester. 34,481 Chester 14,481 Chester 14,481 Chester 14,481 Chester 14,481 Chester 14		10,000	0,020	Oil City		
Ashtabula	<u> </u>	12 728	27.601	Philadelphia		
Canton	Ashtabula					
Chillicothe	Canton			Pittston		
Cincinnati	Chillicothe			Plymouth		
Cleveland	Cincinnati			Pottstown		
Columbus	Cleveland			Pottsville		
Dayton.	Columbus			Reading		
East Liverpool. 16.485 10.956 Findlay.	Dayton					
Findlay	Fast Livernool			M1 1		
Hamilton						
Irontown	Hamilton					
Lima	Iroutown	11.868				
Lorain	Lima			Wilkesharre		
Marsfield	Torain			Wilkinshurg	11 886	1 662
Marietta 13,348 8 273 York 33,708 20,793 Marsillon 11,944 10,092 Rhode Island Central Falls 18,167	Mansfield			Williamsport		
Marion 11 862 8 327 Rhode Island Massillon 11,944 10,092 Central Falls 18,167 Newark 18,157 14,270 Newport 22,034 19,457 Piqua 12,172 9 090 Portsmouth 17 870 12,394 Providence 175,597 132,146 Sandusky 19,664 18,471 Woonsocket 28,204 20,830 Springfield 38,253 31,895 Steubenville 14 349 13,944 Woonsocket 28,204 20,830 Toledo 131,822 81,434 Youngstown 44 885 33,220 Columbia 21,108 15 553 Toledo 131,822 81,434 Youngstown 44 885 33,220 Greenville 11 860 8 607 Voungstown 44 885 33,220 Greenville 11 860 8 607 Oklahoma 10,037 4,151 Ogeth Guernville 11,395 5.544 South Dakota Sioux Falls 10,266 10,177 Tennessee Chattanooga 30,154 29,100	Marietta			Vork		
Massillon 11,944 10,092 Central Falls 18,167 N∈wport 22,034 19,457 Piqua 12,172 9 090 Portsmouth 17,870 12,394 Newport 22,034 19,457 Providence 175,597 132,146 Woonsocket 28,204 20,830 Steubenville 14,349 13,394 Woonsocket 28,204 20,830 South Carolina Columbia 21,108 15,537 Columbia 21,108 15,538 Columbia 21,108 15,538 Greenville 11,860 8 607 54,955 Columbia 21,108 15,538 Greenville 11,860 8 607 54,955 Columbia 21,108 15,533 Greenville 11,860 8 607 54,955 Columbia 21,108 15,534 Columbia 21,108 15,534 Columbia 21,108 15,535 Columbia 21,108 15,535 Columbia 21,108 15,535 Columbia 21,108 15,535 Columbia 21,108 15,534 Columbia 21,108<	Marion			Rhode Island	33,700	20,793
Newark	Massillon				18 167	
Piqua	Newark		, ,			
Portsmouth	Pigua			Parvincket	,	
Sandusky	Portemouth			Providence		
Springfield. 38,253 31,895 Steubenville 14 349 13 394 Tiffin. 10 989 10,801 Toledo. 131,822 81,434 Steubenville 14 885 33,220 Zanesville. 23,538 21,009 Spartanburg. 11,395 5,544 South Dakota South Dak	Sanducky				28 204	
Steubenville	Springfield				20,204	20,030
Tiffin.	Steubenville				ee 807	EACEE
Toledo. 131,822 81,434 Youngstown 44 885 33,220 Zanesville. 23.538 21,009 Oklahoma Guthrie. 10 006 Oklahoma City 10,037 4,151 Oregon Portland. 90,426 46,385 Pennsylvania Allegheny 129.896 Allentown 35.416 25.228 Altoona 38,973 30,337 Beaver Falls. 10 054 9.735 Braddock 15.654 8,561 Bradford 15,029 10,514 Butler. 10,853 8,734 Chester 33 988 20,226 Columbia 12 316 10,599 Dunmore 12.583 8,315 Easton 25,238 Harrisburg 50,167 39,385 Harrisburg 50,167 48,261 Harrisburg 50,167 49,161 Hazelton 14 230 11,872 Homestead 12 554 7,911 Johnstown 35,936 Lancaster 41,459 32,011 Burlington 18,640 14,590	Tiffin					34.733
Youngstown 44 885 33,220 Spartanburg 11,395 5,544 Oklahoma Guthrie 10 006 5.333 Sioux Falls 10,266 10,177 Oklahoma 10 006 5.333 Tennessee Chattanooga 30,154 29,100 Oregon 46,385 Memphis 100,232 64,495 Pennsylvania Memphis 102,320 64,495 Allegheny 129,896 105,287 Memphis 102,320 64,495 Allentown 35,416 25,228 Memphis 102,320 64,495 Allentown 35,416 25,228 Memphis 102,320 64,495 Beaver Falls 10 054 9,735 Dallas 42 638 38,067 Bradford 15,029 10,514 Bradford 15,029 10,514 El Paso 15,906 10,338 Carbondale 13 536 10,833 8,734 Fort Worth 26 688 23,076 Carbondale 12 158 8,315 San Antonio <td>Toledo</td> <td></td> <td></td> <td></td> <td></td> <td>8 607</td>	Toledo					8 607
Zanesville. 23.538 21,009 South Dakota Oklahoma 10 006 5.333 Sioux Falls. 10,266 10,177 Tennessee Chattanooga 30,154 29,100 Jackson. 14,511 10 039 Portland. 90,426 46,385 Memphis. 102,320 64,495 Pennsylvania Allegheny 129,896 105,287 Memphis. 102,320 64,495 Allentown 35,416 25,228 Altoona 38,973 30,337 Texas Altoona 38,973 30,337 Dallas 42 638 38,067 Braddock 15,654 8,561 Denison 11,807 10,958 Bradford 15,029 10,514 Fort Worth 26 688 23,076 Carbondale 13 536 10,833 Chester 33 988 20,226 Houston 44.633 27,557 Easton 25,238 14,481 Yame Yame Yame Erie 52,733 40,634 Yame	Voungetown					
Oklahoma Guthrie 10 006 5.333 Sioux Falls 10,266 10,177 Oregoń Portland 90,426 46,385 Chattanooga 30,154 29,100 Pennsylvania Allegheny 129,896 105,287 Memphis 102,320 64,495 Allentown 35,416 25,228 Altoona 38,973 30,337 Austin 22 258 14,515 Braddock 15,654 8,561 Bradford 15,029 10,514 Butler 10,853 8,734 Denison 11,807 10,938 Carbondale 13 536 10,833 7,734 Fort Worth 26 688 23,076 Columbia 12 316 10,599 Laredo 13,429 11,319 Easton 25,238 14,481 Yaredo 14,633 27,557 Laredo 14 230 11,872 Yaredo 13,429 11,319 San Antonio 53,321 37,673 Yaredo 13,429 11,319 Erie 52,733	Zanesville				**,393	3,344
Guthrie 10 006 5.333 Tennessee Oklahoma City 10,037 4,151 Chattanooga 30,154 29,100 Portland 90,426 46,385 Knoxville 32,637 22 535 Pennsylvania Memphis 102,320 64,495 Allegheny 129,896 105,287 Memphis 102,320 64,495 Allentown 35,416 25,228 Memphis 102,320 64,495 Allentown 38,973 30,337 Memphis 102,320 64,495 Nashville 80,865 76,168 76,168 Texas Austin 22 258 14,575 Dallas 42 638 38,067 Dallas 42 638 38,067 Butler 10,853 8,734 Carbondale 13 536 10,833 Chester 33 988 20,226 Columbia 12 316 10,599 Dunmore 12,583 8,315 Easton 25,238 14,481	Oklahoma	23:330	21,009		10.266	10 177
Oklahoma City 10,037 4,151 Chattanooga 30,154 29,100 Oregon 46,385 Chattanooga 30,154 29,100 Pennsylvania 46,385 Knoxville 32,637 22 535 Allegheny 129,896 105,287 Memphis 102,320 64,495 Allentown 35,416 25,228 Memphis 102,320 64,495 Altoona 38,973 30,337 Austin 22 258 14,575 Braddock 15,654 8,561 Denison 11,807 10,958 Bradford 15,029 10,514 El Paso 15,906 10,338 Butler 10,853 8,734 Galveston 37,789 29,084 Columbia 12 316 10,599 Houston 44,633 27,557 Easton 25,238 14,481 Waco 20,686 14,481 Erie 52,733 40,634 Waco 20,686 14,481 Hazelton 14,230 11,872 <th< td=""><td></td><td>TO 006</td><td>5 222</td><td></td><td>10,200</td><td>10,1//</td></th<>		TO 006	5 222		10,200	10,1//
Oregon Jackson 14,511 10 039 Pennsylvania Jackson 14,511 10 039 Allegheny 129,896 105,287 Memphis 102,320 64,495 Allentown 35,416 25,228 Allentown 38,973 30,337 Memphis 102,320 64,495 Allentown 35,416 25,228 Allentown 80,865 76,168 Allentown 38,973 30,337 Beaver Falls 10 054 9,735 Austin 22 258 14,575 Braddock 15,654 8,561 Denison 11,807 10,958 Bradford 15,029 10,514 Fort Worth 26 688 23,076 Carbondale 13 536 10,833 Fort Worth 26 688 23,076 Galveston 37,789 20,084 Houston 44.633 27,557 Laredo 13,429 11,319 San Antonio 53,321 37,673 Sherman 10,243 7,335					20 154	20 700
Portland 90,426 46,385 Knoxville 32,637 22 535 Pennsylvania Allegheny 129,896 105,287 Memphis 102,320 64,495 Allentown 35,416 25,228 Memphis 102,320 64,495 Allentown 35,416 25,228 Memphis 102,320 64,495 Allentown 35,416 25,228 Nashville 80,865 76,168 Texas Austin 22 258 14,575 Dallas 42 638 38,067 Bradford 15,654 8,561 Denison 11,807 10,958 Butler 10,853 8,734 Fort Worth 26 688 23,076 Carbondale 13,536 10,833 Galveston 37,789 29,084 Houston 44,633 27,557 Laredo 13,429 11,319 San Antonio 53,321 37,673 Harrisburg 50,167 39,385 Hazelton 14,230 11,872		10,037	4,*3*			
Pennsylvania Memphis 102.320 64,495 Allegheny 129.896 105,287 Nashville 80,865 76,168 Allentown 35,416 25,228 Altoona 38,973 30,337 Beaver Falls 10 054 9,735 Dallas 22 258 14,575 Braddock 15,654 8,561 Denison 11,807 10,958 Bradford 15,029 10,514 El Paso 15,906 10,338 Carbondale 13 536 10,833 Galveston 37,789 29,084 Chester 33 988 20,226 Houston 44.633 27,557 Laredo 12,583 8,315 Laredo 13,429 11,319 San Antonio 53,321 7,673 Sherman 10,243 7,335 Harrisburg 50,167 39,385 Waco 20,686 14,481 Harrisburg 50,167 39,385 Waco 20,686 14,889 Homestead 12,554 7,911 7,911	Portland	00 426	16 285	Knovville		
Allegheny 129.896 105,287 Allentown 35,416 25,228 Altoona 38,973 30,337 Beaver Falls 10 054 9,735 Braddock 15,654 8,561 Bradford 15,029 10,514 Butler 10,853 8,734 Carbondale 13,536 10,833 Chester 33,988 20,226 Columbia 12,316 10,599 Dunmore 12,583 8,315 Easton 25,238 14,481 Erie 52,733 40,634 Harrisburg 50,167 39,385 Hazelton 14,230 11,872 Homestead 12,554 7,911 Johnstown 35,936 21,805 Lancaster 41,459 32,011 Allentown 35,416 25,228 Austin 22,258 14,575 Dallas 42,638 38,067 Denison 11,807 10,958 El Paso 15,906 10,338 Fort Worth 26,688 23,076 Galveston 37,789 29,084 Houston 44,633 27,557 Laredo 13,429 11,319 San Antonio 53,321 37,673 Sherman 10,243 7,335 Waco 20,686 14,445 Utah Ogden 16,313 14,889 Salt Lake City 53,531 44,843 Vermont Burlington 18,640 14,590		90,420	40,303			64 405
Allentown 35,416 25,228 Texas Altoona 38,973 30,337 Beaver Falls 10 054 9,735 Braddock 15,654 8,561 Bradford 15,029 10,514 Butler 10,853 8,734 Carbondale 13,536 10,833 Chester 33,988 20,226 Columbia 12,316 10,599 Dunmore 12,583 8,315 Easton 25,238 14,481 Erie 52,733 40,634 Harrisburg 50,167 39,385 Hazelton 14,230 11,872 Homestead 12,554 7,911 Johnstown 35,936 21,805 Lancaster 41,459 32,011 Texas Austin 22,258 14,459 Denison 11,807 10,958 Fort Worth 26,688 23,076 Galveston 37,789 29,084 Houston 53,321 37,673 San Antonio 53,321 7,335 <t< td=""><td>Allegheny</td><td>T20 806</td><td>TOE 287</td><td>Nashville</td><td></td><td>56 ±68</td></t<>	Allegheny	T20 806	TOE 287	Nashville		56 ±68
Altoona 38,973 30,337 Austin 22 258 14,575 Beaver Falls 10 054 9,735 Dallas 42 638 38,067 Braddock 15,654 8,561 Denison 11,807 10,958 Bradford 15,029 10,514 El Paso 15,906 10,338 Butler 10,853 8,734 Fort Worth 26 688 23,076 Carbondale 13 536 10,833 Galveston 37,789 29,084 Chester 33 988 20,226 Houston 44.633 27,557 Columbia 12 316 10,599 Laredo 13,429 11,319 Dunmore 12.583 8,315 San Antonio 53,321 37,673 Easton 25,238 14,481 Waco 20,686 14 445 Harrisburg 50,167 39,385 Waco 20,686 14 445 Hazelton 14 230 11,872 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Burlington 18,640 14,590	Allentown		25 228	Texas	00,003	70,100
Beaver Falls. 10 054 9,735 Dallas. 42 638 38,067 Braddock 15,654 8,561 Denison. 11,807 10,958 Bradford 15,029 10,514 El Paso. 15,906 10,338 Butler. 10,853 8,734 Fort Worth. 26 688 23,076 Carbondale 13 536 10,833 Galveston. 37,789 29,084 Chester. 33 988 20,226 Houston. 44.633 27,557 Columbia. 12 316 10,599 Laredo. 13,429 11,319 Dunmore. 12.583 8,315 San Antonio 53,321 37,673 Easton. 25,238 14,481 Waco. 20,686 14 445 Harrisburg. 50,167 39,385 Waco. 20,686 14 445 Hazelton. 14 230 11,872 Salt Lake City. 53,531 44,843 Johnstown. 35 936 21,805 Salt Lake City. 53,531 44,843 Vermont Burlington. 18,640 14,590	Altoona				22.258	TA 575
Braddock 15.654 8,561 Denison 11,807 10,958 Bradford 15,029 10,514 El Paso 15,906 10,338 Butler 10,853 8,734 Fort Worth 26 688 23,076 Carbondale 13 536 10,833 Galveston 37,789 29,084 Chester 33 988 20,226 Houston 44.633 27,557 Columbia 12 316 10,599 Laredo 13,429 11,319 Dunmore 12.583 8,315 San Antonio 53,321 37,673 Easton 25,238 14,481 Waco 20,686 14 445 Harrisburg 50,167 39,385 Waco 20,686 14 445 Hazelton 14 230 11,872 Ogden 16,313 14,889 Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Burlington 18,640 14,590				Dallas		
Bradford 15,029 10,514 El Paso 15,906 10,338 Butler 10,853 8,734 Fort Worth 26 688 23,076 Carbondale 13 536 10,833 Galveston 37,789 29,084 Chester 33 988 20,226 Houston 44.633 27,557 Columbia 12 316 10,599 Laredo 13,429 11,319 Dunmore 12.583 8,315 San Antonio 53,321 37,673 Easton 25,238 14,481 Waco 20,686 14 445 Harrisburg 50,167 39,385 Waco 20,686 14 445 Hazelton 14 230 11,872 Ogden 16,313 14,889 Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Burlington 18,640 14,590	Braddock			Denison		
Butler 10,853 8,734 Fort Worth 26 688 23,076 Carbondale 13 536 10,833 Galveston 37,789 29,084 Chester 33 988 20,226 Houston 44.633 27,557 Columbia 12 316 10,599 Laredo 13,429 11,319 Dunmore 12.583 8,315 San Antonio 53,321 37,673 Easton 25,238 14,481 Waco 20,686 14 445 Harrisburg 50,167 39,385 Waco 20,686 14 445 Hazelton 14 230 11,872 Ogden 16,313 14,889 Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Burlington 18,640 14,590	Bradford			F1 Paso		
Carbondale 13 536 10,833 Galveston 37,789 29,084 Chester 33 988 20,226 Houston 44.633 27,557 Columbia 12 316 10,599 Laredo 13,429 11,319 Dunmore 12.583 8,315 San Antonio 53,321 37,673 Easton 25,238 14,481 Sherman 10,243 7,335 Sherman 10,243 7,335 Waco 20,686 14 445 Utah Ogden 16,313 14,889 Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Salt Lake City 53,531 44,843 Vermont Burlington 18,640 14,590	Rutler			Fort Worth		
Chester 33 988 20,226 Houston 44.633 27,557 Columbia 12 316 10,599 Laredo 13,429 11,319 Dunmore 12.583 8,315 San Antonio 53,321 37,673 Easton 25,238 14,481 Sherman 10,243 7,335 Erie 52,733 40,634 Waco 20,686 14 445 Harrisburg 50,167 39,385 Utah Ogden 16,313 14,889 Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Salt Lake City 53,531 44,843 Vermont Burlington 18,640 14,590						
Columbia 12 316 10,599 Laredo 13,429 11,319 Dunmore 12.583 8,315 San Antonio 53,321 37,673 Easton 25,238 14,481 Sherman 10,243 7,335 Sherman 20,686 14 445 Utah Ogden 16,313 14,889 Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Vermont Burlington 18,640 14 590			~ ~			
Dunmore 12.583 8,315 San Antonio 53,321 37,673 Easton 25,238 14,481 Sherman 10,243 7,335 Erie 52,733 40,634 Waco 20,686 14 445 Harrisburg 50,167 39,385 Utah Ogden 16,313 14,889 Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Vermont Lancaster 41,459 32,011 Burlington 18,640 14,590				Laredo		
Easton 25,238	Dunmore					
Erie						
Harrisburg 50,167 39,385 Utah Hazelton 14 230 11,872 Ogden 16,313 14,889 Homestead 12 554 7,911 Johnstown 35 936 21,805 Lancaster 41,459 32,011 Burlington 18,640 14 590						
Hazelton 14 230 11,872 Ogden 16,313 14,889 Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Lancaster 41,459 32,011 Burlington 18,640 14,590	Harrishuro				20,000	14 445
Homestead 12 554 7,911 Salt Lake City 53,531 44,843 Johnstown 35 936 21,805 Lancaster 41,459 32,011 Burlington 18,640 14,590	Hazelton				16 212	T4 880
Johnstown 35 936 21,805 Vermont Lancaster 41,459 32,011 Burlington 18,640 14,590	Homestead					
Lancaster 41,459 32,011 Burlington 18,640 14,590	Inhastowa				33,331	44,043
			_		18 640	T.4. FOO
14.004 Kuttand 11,499						
		27,020	14,004			

CITIES AND TOWNS.	1900.	1890.	CITIES AND TOWNS.	1900.	1890.
Virginia			Wisconsin		
Alexandria	14,528	14,339	Appleton	15,085	11,869
Dauville	16,520	10,305	Ashland	13,074	9 956
Lynchburg	18,891	19,709	Beloit	10,436	6.315
Newport News	19 635	4,449	Eau Claire	17,517	17,415
Norfolk	46.624	34,871	Fond du Lac	15,110	12 024
Petersburg	21,810	22,680	Green Bay	18,684	9,069
Portsmouth	17 427	13,268	Janesville	13,185	10,836
Richmond	85,050	81,388	Kenosha	11,606	6,532
Roanoke	21,495	16,159	LaCrosse	28,895	25,090
Washington			Madison	19,161	13,426
Seattle	80,671	42,837	Manitowoc	11,786	7,710
Spokane	36,848	19,922	Marinette	15,195	11,523
Tacoma	37.714	36,006	Milwaukee	285,315	204,468
Wallawalla	10,049	4,709	Oshkosh	28,284	22,836
West Virginia			Racine	29,102	21,014
Charleston	11,099	6,742	Sheboygan	22,962	16,359
Huntington	11,923	10,108	Superior	31.091	11,983
Parkersburg	11.703	8 408	Wausau	12 354	9,253
Wheeling	38,878	34,522		14,087	11,690

The Wonderful Growth of Chicago.

The population of Chicago in 1830, was 70; 1840, 4,853; 1845, 12,088; 1850, 29,963; 1855, 60,227; 1860, 112,172; 1865, 178,900; 1870, 298,977; 1872, 364,377; 1880, 503,185; 1884, (estimated) 675,000; 1885, (estimated), 727,000; 1886, (estimated) 750,000; 1887, (estimated) 760,000; 1889, 1890 1,099,850; 1900, 1,698,575.

THE NAMES OF THE STATES.

Alabama—Indian; meaning "Here we rest." Arkansas— "Kansas," the Indian name for "smoky water," with the French prefix "arc," bow or bend in the principal river. California— Caliente Fornalla, Spanish for "hot furnace," in allusion to the climate. Colorado - Spanish; meaning "colored," from the red color of the Colorado river. Connecticut-Indian: meaning "long river." Delaware—Named in honor of Lord Delaware. Florida—Named by Ponce de Leon, who discovered it in 1512, on Easter Day, the Spanish Pascua de Flores, or "Feast of Flowers." Georgia—In honor of George II. of England. Illinois - From the Indian "illini," men, and the French suffix "ois," together signifying "tribe of men." Indiana—Indian land. Iowa—Indian; meaning "beautiful land." Kansas— Indian; meaning "smoky water." Kentucky-Indian; for "at the head of the river; "or "the dark and bloody ground." Louisiana—In honor of Louis XIV. of France. Maine—From the province of Maine, in France. Maryland—In honor of Henrietta Maria, queen of Charles I. of England. Massachusetts— The place of the great hills (the blue hills southwest of Boston).

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NAMES OF THE STATES.

Michigan - The Indian name for a fish weir. The lake was so called from the fancied resemblance of the lake to a fish trap. Minnesota - Indian; meaning "sky-tinted water." Mississippi —Indian; meaning "great father of waters." Missouri—Indian; meaning "muddy." Nebraska—Indian; meaning "water valley." Nevada—Spanish; meaning "snow-covered," alluding to the mountains. New Hampshire—From Hampshire county, England. New Jersey-In honor of Sir George Carteret, one of the original grantees, who had previously been governor of Jersey Island. New York-In honor of the Duke of York. North and South Carolina - Originally called Carolina, in honor of Charles IX. of France. Ohio-Indian; meaning "beautiful river." Oregon — From the Spanish "oregano," wild marjoram, which grows abundantly on the coast. Pennsylvania -Latin: meaning Penn's woody land. Rhode Island-From a fancied resemblance to the island of Rhodes in the Mediterranean. Tennessee-Indian, meaning "river with the great bend." Texas—Origin of this name is unknown. Vermont—French; meaning green mountain. Virginia—In honor of Elizabe.h, the "Virgin Queen." Wisconsin-Indian; meaning "gathering of the waters," or "wild rushing channel."

MOTTOES OF THE STATES.

Arkansas - Regnant populi: The peoples rule. California—Eureka: I have found it. Colorado—Nil sine numine: Nothing without the Divinity. Connecticut—Qui transtulit sustinct: He who has transferred, sustains. Delaware—Liberty and Independence. Florida — In God is our trust. Georgia — Wisdom, Justice, Moderation. Illinois - State Sovereignty and National Union. Iowa - Our liberties we prize, and our rights we will maintain. Kansas—Ad astra per aspera: To the stars through rugged ways. Kentucky-United we stand, divided we fall. Louisiana - Union and Confidence. Maine - Dirigo: I direct. Maryland-Crescite et multiplicamini: Increase and multiply. Massachusetts-Ense petit placidam sub libertate quietem: By her sword she seeks under liberty a calm repose. Michigan -Si quæris peninsulam amænam circumspice: If thou seekest a beautiful peninsula, look around. Minnesota-L'Etoile du Nord: The Star of the North. Missouri-Solus populi suprema lex esto: Let the welfare of the people be the supreme law. Nebraska—Popular Sovereignty. Nevada—Volens et potens: Willing and able. New Fersey—Liberty and Independence. New York—Excelsion: Higher. Ohio—Imperium in imperio: An empire within an empire. Oregon -Alis volat propriis: She flies with her own wings. Pennsylvania-Virtue, Liberty, Independence. Rhode Island-Hope,

GEOGRAPHICAL NICKNAMES.

South Carolina—Animis opibusque parati: Ready with our lives and property. Tennessee—Agriculture, Commerce. Vermont—Freedom and Unity. Virginia—Sic semper tyrannis: So be it ever to tyrants. West Virginia—Montani semper liberi: The mountaineers are always free. Wisconsin—Forward. United States—E pluribus unum: From many, one. Annuit captis: God has favored the undertaking; Novus ordo sectorum: A new order of ages. The first named on one side of the great seal, the other two on the reverse.

GEOGRAPHICAL NICKNAMES.

STATES AND TERRITORIES.

Alabama, Cotton State; Arkansas, Toothpick and Bear State; California, Eureka and Golden State; Colorado, Centennial State; Connecticut, Land of Steady Habits, Freestone State and Nutmeg State; Dakota, Sioux State; Delaware, Uncle Sam's Pocket Handkerchief and Blue Hen State; Florida, Everglade and Flowery State; Georgia, Empire State of the South; Idaho, Gem of the Mountains; Illinois, Prairie and Sucker State; Indiana, Hoosier State; Iowa, Hawkeye State; Kansas, Jayhawker State; Kentucky, Corn-cracker State; Louisiana, Creole State; Maine, Timber and Pine Tree State; Maryland, Monumental State; Massachusetts, Old Bay State; Michigan, Wolverine and Peninsular State; Minnesota, Gopher and North Star State; Mississippi, Eagle State; Missouri, Puke State; Nebraska, Antelope State; Nevada, Sage State; New Hampshire, Old Granite State; New Jersey, Blue State and New Spain; New Mexico, Vermin State; New York, Empire State; North Carolina, Rip Van Winkle, Old North and Turpentine State; Ohio, Buckeye State; Oregon, Pacific State; Pennsylvania, Keystone, Iron and Oil State; Rhode Islanu, Plantation State and Little Rhody; South Carolina, Palmetto State; Tennessee, Lion's Den State; Texas, Lone Star · State; Utah, Mormon State; Vermont, Green Mountain State: Virginia, Old Dominion; Wisconsin, Badger and Copper State.

NATIVES OF STATES AND TERRITORIES.

Alabama, lizards; Arkansas; toothpicks; California, gold-hunters; Colorado, rovers; Connecticut, wooden nutmegs; Dakota, squatters; Delaware, muskrats; Florida, fly-up-the-creeks; Georgia, buzzards; Idaho, fortune seekers; Illinois, suckers; Indiana, hoosiers; Iowa, hawkeyes; Kansas, jayhawkers; Kentucky, corn-crackers; Louisiana, creoles; Maine, foxes; Maryland, clam-humpers; Massachusetts, Yankees; Michigan, wolverines; Minnesota, gophers; Mississippi, tadpoles; Missouri, pukes; Nebraska, bugeaters; Nevada, sage-hens; New Hampshire, granite boys; New Jersey, blues, or clam-catchers; New Mexico,

GEOGRAPHICAL NICKNAMES.

Spanish Indians; New York, Knickerbockers; North Carolina, tarheels; Ohio, buckeyes; Oregon, hard cases; Pennsylvania, pennamites, or leather-heads; Rhode Island, gunflints; South Carolina, weazles; Tennessee, whelps; Texas, beef-heads; Utah, polygamists; Vermont, green-mountain boys; Virginia, beagles; Wisconsin, badgers.

NICKNAMES OF CITIES.

Atlanta, Gate City of the South; Baltimore, Monumental City; Bangor, Lumber City; Boston, Modern Athens, Literary Emporium, City of Notions, and Hub of the Universe; Brooklyn, City of Churches; Buffalo, Queen of the Lakes; Burlington (Iowa), Orchard City; Charleston, Palmetto City; Chicago, Prairie, or Garden City; Cincinnati, Queen of the West and Porkopolis; Cleveland, Forest City; Denver, City of the Plains; Detroit, City of the Straits; Hartford, Insurance City; Indianapolis, Railroad City; Keokuk, Gate City; Lafayette, Star City; Leavenworth, Cottonwood City; Louisville, Falls City; Lowell, Spindle City; McGregor, Pocket City; Madison, Lake City; Milwaukee, Cream City; Nashville, Rock City; New Haven, Elm City; New Orleans, Crescent City; New York, Empire City, Commercial Emporium, Gotham, and Metropolis of America, Philadelphia, City of Brotherly Love, City of Penn, Quaker City, and Centennial City; Pittsburgh, Iron City and Smoky City; Portland (Me.), Hill City; Providence, Roger Williams's City, and Perry Davis's Pain Killer; Raleigh, Oak City; Richmond (Va.), Cockade City; Richmond (Ind.), Quaker City of the West; Rochester, Aqueduct City; Salt Lake City, Mormon City; San Francisco, Golden Gate; Savannah, Forest City of the South; Sheboyan, Evergreen City, St. Louis, Mound City; St. Paul, North Star City; Vicksburg, Key City; Washington, City of Magnificent Distances, and Federal City.

The English Sparrow.

The first English sparrow was brought to the United States in 1850, but it was not until 1870 that the species can be said to have firmly established itself. Since then it has taken possession of the country. Its fecundity is amazing. In the latitude of New York and southward it hatches, as a rule, five or six broods in a season, with from four to six young in a brood. Assuming the average annual product of a pair to be twenty-tour young, of which half are females and half males, and assuming further, for the sake of computation, that all live, together with their offspring, it will be seen that in ten years the progeny of a single pair would be 275,716,983,698.

UNITED STATES DEPENDENCIES.

The United States became responsible in 1898 for certain territories beyond the bounds of the Commonwealth—the Hawaiian or Sandwich Islands, Cuba, Porto Rico, the Philippines, Guam, and to these were added in 1900 the Island of Tutuila and other small Samoan islands.

HAWAII.—The Hawaiian or Sandwich Islands, discovered by the Spaniards in 1549, formed during the greater part of the nineteenth century an independent kingdom. In 1893, however, the reigning Queen, Liliuokalani, was deposed and a provisional government formed; in 1894 a Republic was proclaimed, and in accordance with a resolution of Congress of July 7, 1898, the islands were, on August 12, 1898, formally annexed to the United States. On June 14, 1900, the islands were constituted as the Territory of Hawaii. By the Act of April 30, 1900, all persons who on August 12, 1898, were citizens of the Republic of Hawaii, were declared to be citizens of the United States and of the Territory of Hawaii. The total area of the islands is 6,640 square miles—namely, Hawaii, 4,210; Maui, 760; Oahu, 600; Kauai, 590; Molokai, 270; Lanai, 150; Niihau, 97; Kahoolawe, 63 square miles. According to the census taken on June 1, 1900, the total population of the islands numbered 154,001, an increase of 44,981, or 41,2 per cent

islands numbered 154,001, an increase of 44,981, or 41.2 per cent

since 1896.

The number of Hawaiians in the islands is 29,834; in 1896 lt was 31,019. The part-Hawaiians now number 7,835; in 1896 there were 8,485. The increase in the number of Chinese since 1896 is 6,360, the present number being 25,742. In 1896 there were 22,329 Japanese; now there are 62,122, an increase of 278 per cent. The white population has increased in number during the same period. In 1896 the whole white population was 22,428; in 1900 it was 28,533.

Most of the immigrants are Japanese. There are now restrictions

on Chinese immigration. The capital, Honolulu (39,305 inhabitants), is in the Island of Oahu.

Nearly all the natives are Christians. There is a Church of England bishop at Honolulu; also a Roman Catholic bishop, and England bishop at Honolulu; also a Roman Catholic bishop, and ministers of various denominations. In 1896 there were 23.773 Protestants, 26,363 Roman Catholics, 4,886 Mormons, 44,306 Buddhists, etc. Schools are established all over the islands, the sum allotted for public instruction in 1897 being \$144,389. In 1899 there were 189 schools, with 544 teachers and 15,490 pupils; of the pupils 5,043 were Hawaiians, 2,721 part Hawaiian, 3,822 Portuguese, 2,455 Asiatics, 601 American, 213 British and 337 German. Of the teachers, 282 were American, 130 Hawaiian or part Hawaiian, and 66 British.

CUBA.—Cuba, after having been continuously in the possession of Spain from its discovery, was by the peace preliminaries and by the definitive treaty signed by the Peace Commissioners at Paris, December 10, 1898, relinquished by Spain, and thus has the position of an independent state. The direct armed interposition of the United States in the struggle against Spanish domination has, however, brought the island into close association with the United States Government. On November 5, 1900, a convention met to decide on a constitution, and on February 21, 1901, a constitution was adopted, under which the island will have a republican form of government, with a president, a vice-president, a Senate and a House of Representatives. Thereupon the United States Legislature passed a law authorizing the President of the United States to

UNITED STATES DEPENDENCIES.

make over the government of the island to the Cuban people as soon as Cuba should undertake to make no treaty with any foreign power endangering its independence, to contract no debt for which the current revenue would not suffice, to concede to the United States Government a right of intervention, and also to grant to it the use of naval stations. On June 12, 1901, these conditions were accepted by Cuba, and on February 24, 1902, the President and Vice-President of the Republic were formally elected.

Cuba has an area of about 35,994 square miles, with a population, according to the census enumeration of October, 1899, of 1,572,797.

Of the total population, 622,330 were engaged in some occupa-

Cuba has an area of about 35,994 square miles, with a population, according to the census enumeration of October, 1899, of 1,572,797. Of the total population, 622,330 were engaged in some occupation, as follows: 299,197 in agriculture, mining or fishing, 141,936 in domestic service, 93,034 in manufactures, 79,427 in commerce and traffic, 8,736 in professions. Of adult male whites (Cuban), there were 94,301, and of colored adult males there were 78,279

wholly illiterate.

The capital, Havana, has 235,981 inhabitants; Matanzas, 36,374; Santiago de Cuba, 43,090; Cienfuegos, 30,038; Puerto Principe, 25,102; Cardenas, 21.940. Education was made obligatory in 1880. There are 843 public schools in the island, and Havana has a unlversity.

PORTO RICO.—Porto Rico, which, by the treaty of December 11, 1898, was ceded by Spain to the United States, has had a representative government since May 1, 1901, the franchise being restricted by a small property qualification and an easy educational test. There are an elective legislative assembly, a nominated executive council, and a Governor. The island has an area of about 3,600 square miles. The population in 1899 was 953,243 (in 1887, 798,566). The negroes number about 70,000 and mulattoes about 240,000. Chief town, San Juan, 32,048 inhabitants; Ponce, 27,952; Mayaguez, 15,187.

PHILIPPINE ISLANDS.—These islands, ceded by Spain to the United States by the treaty signed by the Peace Commissioners, December 10, 1898, extend almost due north and south from Formosa to Borneo and the Moluccas, embracing an extent of 16 degrees of latitude and 9 degrees of longitude. They are about 2,000 in number; the two largest are Luzon (area, 40,024 square miles) and Mindanao; and the total area, including the Sulu Islands, is about 114,000 square miles. The population is estimated at about 8,000,000. The capital of the Philippines, Manila, has 350,000 inhabitants; Lipa, 40,730; Banang, 39,660; Batangas, 39,360; Laoang, 37,100; Cebu, 35,240; Argao, 34,050; Albay, 34,000; Taal, 33,380; Carear, 30,300; Calbayog, 30,250. There are about 25,000 Europeans in the islands and about 100,000 Chinese, in whose hands are the principal industries. The native Inhabitants are mostly of the Malayan race, but there are some tribes of Negritos. The group is divided into three governments: Luzon, the Visayas, and Mindanao with the Sulu Islands; but in many of the islands the natives have hitherto been practically Independent. A Commission, appointed in January, 1900, after deliberation with the people, framed many useful laws which the Secretary of War approved. Local Government was instituted in 765 towns, each being formed into a municipality with a president, vice-president and council chosen for two years by qualified electors. For the administration of justice there is a Supreme Court with 7 judges, and there are 14 judicial districts, each with a court of first Instance. For the maintenance of order a native police force has been organized. Throughout the islands schools are being estab

UNITED STATES DEPENDENCIES.

lished with American teachers and about 2,000 native elementary teachers, about 150,000 children being enrolled, while about 10,000 adult natives learn English. The land question being complicated with that of the religious orders which hold about 403,000 acres occupied by native tenantry, the Government will probably solve the difficulty by purchasing the land and selling it to the occupants.

GUAM (LADRONES).—The Island of Guam or Guahan, the largest in the Marianne or Ladrone Archipelago, was ceded by Spain to the United States in 1898, and will probably be used as a coaling station for the United States navy. The island is about 32 miles long and 100 miles in circumference, with an area of about 200 square miles, and has a population of about 9,000, of whom about 6,000 are in Agana, the capital. The inhabitants are mostly immigrants or descendants of immigrants from the Philippines, the original race of the Marianne Islands having become extinct. The recognized language is Spanish, but English is also spoken. Ninetenths of the islanders can read and write. The island is thickly wooded, well watered and fertile, and possesses a roadstead.

SAMOAN ISLANDS.—The Island of Tutuila and other small Samoan islands came into the possession of the United States in January, 1900. In 1872 the harbor of Pago Pago, in Tutuila, had been ceded to the United States for a naval and coaling station. In 1878 this cession was confirmed, and rights of freedom of trade and extra-territorial jurisdiction in Samoa were granted. In 1889 was held at Berlin the conference between the representatives of the United States, Germany and Great Britain, resulting in the treaty recognizing the Samoan Islands as neutral territory with an independent government, the natives being allowed to follow their own laws and customs, while for civil and criminal causes in which foreigners were concerned there was established a Supreme Court of Justice, in which an American citizen was the presiding judge. This arrangement continued till 1898, when disturbances regarding the rights of succession to the office of king arose. In 1899 the kingship was abolished, and by the Anglo-German agreement of November 14 of that year, accepted in January, 1900, by the United States, Great Britain and Germany, renounced in favor of the United States all rights over the Island of Tutuila and the other islands of the Samoan group east of 171 degrees longitude east of Greenwich. In February, 1900, a naval governor was appointed for Tutuila. The Island of Tutuila, 70 miles from Apia, has an area of about 54 square miles, with a population of 3,800. Manua and the other islets have a united area of about 25 square miles, with about 2,000 inhabitants.

CANDLE-Power—The candle-power of a light may be approximately calculated by comparing the shadow cast by a rod in the light of a standard candle, with the shadow cast by the light to be tested. By moving the latter toward or away from the rod, a point will be reached at which the shadow cast by both lights will be of the same intensity. The intensities of the two lights are directly proportional to the squares of their distances from the shadows; for example, suppose the light to be tested is three times the distance of the candle, its illuminating power is nine times as great.

THE CIVIL WAR OF 1861-65.

Number of Men in the Union Army Furnished by Each State and Territory, from April 15, 1861, to Close of War.

States and Territories.	Number of Men Furnish'd	AGGREGATE REDUCED TO A THREE YEARS' STANDING.	STATES AND TERRITORIES.	Number of Men Furnish'd	Ag'regate Reduced to a Three Years' Standing.
Alabama Arkansas California Colorado Connecticut Delaware Florida Georgia Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Nebraska New Hampshire	2,556 8,289 15,725 4,903 55,864 12,284 1,290 259,092 196,363 76,262 20,149 75,760 5,224 70,107 46,638 146,730 87,364 24,020 545 109,111 3,157 1,080 33,937	1,611 7,836 15,725 3,697 50,623 10,322 1,290 214,133 153,576 68,630 18,706 70,832 4,654 56,776 41,275 124,104 80,111 19,693 545 86,530 2,175 1,080 30,849	New York North Carolina Ohio Oregon Pennsylvania Rhode Island South Carolina Tennessee Texas Vermont Virginia West Virginia Wisconsin Dakota Dist of Columbia Indian Territory Montana New Mexico Utah Washington Ter U S Army U S Volunteers U S col'r'd troops	33,288 32,068 91,327 206 16,534 3,530 6,561 964	392,270 3,156 240,514 1,773 265,517 17,866 26,394 1,632 29,068 27,714 79,260 206 11,506 3,530 4,432 964
New Jersey		57,908	Total	2,772,408	2,320,272

The armies of the United States were commanded during the war of the Rebellion by President Lincoln as commander-inchief under the constitutional provision; and under him, as general commanders, by Brevet Lieutenant General Winfield Scott until Nov. 6, 1861; by Major General George B. McClellan from Nov. 6, 1861, to March 11, 1862; by Major General Henry W. Halleck from July 11, 1862, to March 12, 1864 (there being no general commander between March 11 and July 11, 1862); and Lieutenant General and General U. S. Grant from March 12, 1864, to March 4, 1869. The first of the principal armies into which the force of the United States was divided was the Army of the Potomac. This army was called into existence in July, 1861, and was organized by Major General George B. McClellan, its first commander; Nov. 5, 1862, Major General A. E. Burnside took command of it; Jan. 25, 1863, Major General Joe Hooker was placed in command, and June 27, 1863, Major General George G. Meade succeeded him. The Army of the Ohio was organized by General D. C. Buell, under a general order from the

THE CIVIL WAR OF 1861-65.

War Department dated Nov. 9, 1861, from troops in the military department of the Ohio. General Buell remained in command until Oct. 30, 1862, when he was succeeded by General W. S. Rosecrans. At this time the Army of the Ohio became the Army of the Cumberland and a new department of the Ohio was formed and Major General H. G. Wright assigned to the command thereof. He was succeed by Major General Burnside, who was relieved by Major General J. G. Foster of the command of both department and army. Major General Schofield took command Jan. 28, 1864, and Jan. 17, 1865, the department was merged into the Department of the Cumberland. The Army of the Cumberland was formed of the Army of the Ohio, as above noted. It continued under the command of General Rosecrans until October, 1863, when General George H. Thomas took command of it. The Army of the Tennessee was originally the Army of the District of Western Tennessee, fighting as such at Shiloh. It became the Army of the Tennessee on the concentration of troops at Pittsburgh Landing under General Halleck, and when the Department of the Tennessee was formed, Oct. 16, 1862, the troops serving therein were placed under command of Major General U.S. Grant. Oct. 27, 1863, Major General William T. Sherman was appointed to the command of this army; March 12, 1864, Major General J. B. McPherson succeeded him; July 30, 1864, McPherson having been killed, Major General O. O. Howard was placed in command, and May 19, 1862, Major General John A. Logan succeeded him. Other minor armies were the Army of Virginia, which was formed by the consolidation of the forces under Major Generals Fremont, Banks and McDowell, by order of the War Department, Aug. 12, 1862. Major General John Pope was placed in command, but after the disastrous defeat of this general at Manassas the army as such was discontinued and its troops transferred to other organizations. The Army of the James was formed of the Tenth and Fourteenth corps and cavalry, and was placed under the command of Major General Butler. Its operations were carried on in conjunction with the Army of the Potomac. Other temporary arrangements of the troops formed the Army of the Mississippi in the Mississippi River operations in 1862; the Army of the Gulf in Louisiana in May, 1863; the Army of West Virginia, in the valley of the Shenandoah, in May, 1864, and the army of the Middle Military Division in Virginia in the fall of 1864.

A HORSE will live 25 days without solid food, merely drinking water; 17 days without either eating or drinking; and only 5 days when eating solid food without drinking.

CHRONOLOGY OF RECENT WARS.

SPANISII-AMERICAN WAR,	1898
SPANISH-AMERICAN WAR,	February 15
Main; blown up	April 19
Spain asked to leave Cuba	April 21
Diplomatic relations broken	
Cuban blookada declared	A A A A A A A A A A A A A DITTI GG
War declared by Spain	
War declared by United States	April 25
Dewey's victory at Manila	
Hobson's Merrimac exploit	June 3
Inited States army couns land in Cuba	June 21
Battle at El Caney and San Juan	July 1
Cervera's fleet destroyed	July 3
Cervera's neet destroyed	July 14
General Toral surrenders	Tolo 17
Santiago de Cuba surrenders	July 17
Campaign in Porto Rico begins	July 25
Peace protocol signed	
Surronder of Manila	August 13
Peace treaty signed in Paris	December 12
PHILIPPINE WAR, 1809-1	900
PHILIPPINE WAR, 1000-1	February 4, 1899
Mostilities begin	Echmony 47 1890
Battles around Manila	repruary 4-1, 1000
Battle at Pasig	March 13, 1899
Rattle at Malinea	March 20, 1899
Rattle at Santa Cruz	
Santa Cruz cantured	
San Fernando captured	
Battle at Bacoor	June 13, 1899
Battle at Imus	June 16, 1899
Battle at Colamba	July 26 1899
Battle at Colamba	August 9, 1899
Battle at Calulut	August 3, 1833
Battle at Angeles	August 10, 1899
Major John A. Logan killed	November 14, 1899
Major John A. Logan killed	December 10, 1899
General Lawton killed	December 19, 1899
Taft commission appointed	February 25, 1900
Amnesty proclaimed	June 21, 1900
Aguinaldo captured	March 23, 1901
Civil government partly established	July 4, 1901
ANGLO-BOER WAR, 1899-19	901
Boers declare war	Oatobon 10 1800
Boers declare war	October 10, 1839
Boers invade Natal	October 12, 1899
Battle of Glencoe	October 20, 1899
Battle of Magersfonein	December 10, 1899
Battle at Colesberg	December 31, 1899
Spion Kon battles	January 23-25, 1900
Klmberley relieved	February 15, 1900
General Cronje surrenders	February 27, 1900
Ladysmith relieved	March 1, 1900
General Joubert dies	March 27, 1900
D. Allert D. Henry	March 31, 1900
Battle at Reddersburg	
Mafeking relieved	
Johannesburg captured	May 30, 1900
Orange Free State annexed	
Pretoria captured	June 4, 1900
South African Republic annexed	September 1, 1900
General Clement defeated	December 14, 1900
Lord Roberts returns home	January 1, 1900
Battle at Vladfontein	
Battle at Utrecht	Sontambon 19 1001
Battle at Otrecht	September 18, 1901
Attack on Fort Itala	September 30, 1901

CHRONOLOGY OF THE RUSSO-JAPANESE WAR.

IMMEDIATE CAUSE OF THE WAR.

Russia failed to evacuate Manchuria in accordance with treaty stipulations, though the real trouble originated in 1896, when Russia, with the concurrence of France and Germany, prevented Japan from acquiring the Liaotung peninsula and Port Arthur as part of the war indemnity from China. Russia was apparently determined to retain possession of Port Arthur, and possibly of the whole of Manchuria. Japan considered the situation intolerable, believing it to menace her national existence; persistent efforts, long continued by Japan, to come to an understanding by peaceable means, proved fruitless, and on Feb. 6th, 1904, diplomatic relations were severed. The story of the war chronologically follows:

Feb. 8-9, 1904—Variag and Korietz destroyed in Chemulpo harbor and Togo attacks Port Arthur fleet.

May I—Japanese take Fengwangcheng.

May 5—Japanese land at Pitsewo and begin to invest Port Arthur.

May II—Russians evacuate Dalny, destroying the town.

May 26-27—Battles of Nanshan hill and Kinchow; loss, 5,130.

June 14-15—Oku defeats Stackelberg at Vafangow; loss,

11,000.

June 17-Battle of Motien Pass; Russians driven back.

June 30-31—Battle of Haicheng; loss, 5.700.

July 25—Russian forces driven out of Newchwang.

Aug. 10—Sortie from Port Arthur harbor; Russian fleet dispersed and in part destroyed; Vice-Admiral Withoft killed. Aug. 14—Kamimura defeats Vladivostok squadron; Rurik

sunk.

Aug. 30-Sept. 4—Japanese, under Oyama, defeat Kuropatkin at Liaoyang; 365,000 engaged; loss, 35,000.

Sept. 11-Baltic fleet sails from Cronstadt under Rojest-

vensky.

Oct. 8-18—Kuroki defeats Kuropatkin at Shakhe river.

Total casualties 61,679, with 23,000 killed.

Oct. 22—The "Doggerbank outrage." Two British fishermen killed.

Nov. 30—Japanese take 203-Meter hill by storm, losing 12,000.

Jan. 2—Stoessel surrenders Port Arthur to Nogi.

Jan. 26 to 31—Battle of the Hun river; Russians defeated with loss of 15,000; Japanese loss, \$5,000.

LOSSES AND COST IN FIRST YEAR OF WAR. LOSSES IN MEN.

	Killed.	Wounded.	Total.
Russians	60,000	155,000	215,000
Japanese	65,000	110,000	175,000

NAVAL LOSSES.

By Russia—Seven battleships, thirteen cruisers and fourteen gunboats, torpedo boats and destroyers. Total, 34 ships.

By Japan—One battleship, three cruisers, three transports and sixteen torpedo boats and destroyers. Total, 23 ships.

FINANCIAL COST.

Official figures b	y Russia	\$475,000,000
Estimates made	by Japan	360,000,000

Total cost to both countries.....\$835,000,000

THE MONROE DOCTRINE.

The famous "Monroe Doctrine" was enunciated by President Monroe in his message to congress Dec. 2, 1823. Referring to steps taken to arrange the respective rights of Russia, Great Britain and the United States on the northwest coast of this

continent, the president went on to say:

"In the discussions to which this interest has given rise, and in the arrangements by which they may terminate, the occasion has been deemed proper for asserting, as a principle in which the rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. * * * We owe it, therefore. to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintain it, and whose independence we have. on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States."

GREAT BATTLES OF HISTORY.

The number placed *hors-de-combat* in battle are not relatively so large as formerly, as the table below will show:

#71 ·	Men Engaged.	Hors-de-combat.		Ratio.
Thrasymene	65,000	17,000	27	per cent.
Cannæ	146,000	52,000	34	"
Bannockburn ,	135,000	38,000	28	66
Agincourt	62,000	11,400	18	46
Crecy	117,000	31,200	27	"
Marengo	58,000	13,000	22	66
Austerlitz	170,000	23,000	13	66
Borodino	250,000	78,000	31	66
Waterloo	145,000	51,000	35	66
Alma	103,000	8,400	8	66
Sadowa	402,000	33,000	8	66
Gravelotte	320,000	48,500	15	"
Gettysburg	140,000	8,000	5	66

According to Napoleon, the proportions of an army should be 70 per cent. infantry, 17 per cent. cavalry, and 13 per cent. between artillery, engineers and train.

The proportion of men capable of bearing arms is estimated

at 25 per cent. of the population.

At the close of the Franco-German war the Germans took from the French 7.234 pieces of cannon, including 3,485 field pieces and 3,300 fortress guns. At the battle of Waterloo the British artillery fired 9,467 rounds, or one for every Frenchman killed.

The Decisive Battles of History.

Actium, B.C. 31. The combined fleets of Antony and Cleopatra defeated by Octavius, and imperialism established in the person of Octavius.

Philippi, B.C. 42. Brutus and Cassius defeated by Octavius

and Antony. The fate of the Republic decided.

Metaurus, B.C. 207. The Carthaginians, under Hasdrubul, were defeated by the Romans, under Caius and Marcus Livius.

Arbela, B.C. 331. The Persians defeated by the Macedonians and Greeks under Alexander the Great. End of the Persian empire.

Syracuse, B.C. 414. The Athenians defeated by the Syracu-

sans and their allies, the Spartans, under Gylippus.

Marathon, B.C. 490. The Athenians, under Miltiades, defeated the Persians under Datis. Free government preserved.

Winfeld-Lippe, A.D. 9. Teutonic independence established by the defeat of the Roman legions under Varus at the hands of the Germans under Arminius (Hermann).

Chalons, A.D. 451. The Huns, under Attila, called the

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DECISIVE BATTLES OF HISTORY.

"Scourge of God," defeated by the confederate armies of Romans and Visigoths.

Tours, A.D. 732. The Saracens defeated by Charles Martel

and Christendom rescued from Islam.

Hastings, A.D. 1066. Harold, commanding the English army, defeated by William the Conqueror, and a new regime established in England by the Normans.

Siege of Orleans, A.D. 1429. The English defeated by the

French under Joan of Arc.

Defeat of the Spanish Armada, A.D. 1588. England saved from Spanish invasion.

Lutzen, A.D 1632. Decided the religious liberties of Germany.

Gustavus Adolphus killed.

Blenheim, A.D. 1704. The French and Bavarians, under Marshal Tallard, defeated by the English and their allies, under Marlborough.

Pultowa, A.D. 1700. Charles XII., of Sweden, defeated by

the Russians under Peter the Great.

Saratoga, A.D. 1777. Critical battle of the American War of Independence. The English defeated by the Americans under Gen. Gates.

Valmy, A.D. 1792. An invading army of Prussians, Austrians and Hessians, under the Duke of Brunswick, defeated by the French under Kellermann. The first success of the Republic against foreigners.

Trafalgar. On the 21st of October, A.D. 1805, the great naval battle of Trafalgar was fought. The English defeated the French and destroyed Napoleon's hopes to successfully invade England.

Waterloo, A.D. 1815. The French, under Napoleon, defeated by the allied armies of Russia, Austria, Prussia and England, under Wellington.

Siege of Sebastopol, A.D. 1854-5. The Russians succumbed to the beleaguering armies of England, France and Turkey, and the result was delay in the expansion of the Russian Empire.

Gettysburg, July, A.D. 1863. The deciding battle of the war for the Union. The Confederates under Gen. Lee defeated by the Union forces under Meade.

Sedan, A.D. 1870. The decisive battle of the Franco-German war.

Slavery and Serfdom.

Some of the wealthy Romans had as many as 10,000 slaves. The minimum price fixed by the law of Rome was \$80, but after great victories they could sometimes be bought for a few shillings on the field of battle. The day's wages of a Roman gardener were about 16 cents, and his value about \$300, while a black-

SLAVERY AND SERFDOM.

smith was valued at about \$700, a cook at \$2,000, an actress at

\$4,000, and a physician at \$11,000.

The number of slaves emancipated in the British Colonics in 1834 was 780,993, the indemnity aggregating, in round figures, \$100,000,000. In Brazil, in 1876, there were 1,510,800 slaves, 15 per cent. of the entire population. These were held by 41,000 owners, averaging 37 to each owner. In 1882 the number of slaves was 1,300,000. Owing to the gradual abolition of slavery in Brazil by law it is expected that it will be entirely obsolete in 1900.

Slavery in the United States.

Year.	Number.	Year.	Number.
1790	697,900	1830	2,009,030
		1840	
1810	1,191,400	1850	3,204,300
1820	1,538,100	1860	3,979,700

Serfdom in Russia.

There were 47,932,000 serfs in Russia in 1861, as follows: Crown serfs, 22,851,000; appanage, 3,326,000; held by nobles, 21,755,000. The cost of redemption was, in round numbers, about \$325,000,000, as follows:

Mortgages remitted	\$152,000,000
Government scrip	101,000,000
Paid by serfs	52,000,000
Balance due	20,000,000

The indemnity to the nobles was \$15 per serf. The lands are mortgaged to the state till 1912. The lands ceded to Crown serfs are mortgaged only till 1901. The item of "mortgages remitted" is the amount due by nobles to the Imperial Bank and canceled.

Austrian Servitude (1840).	Value.
Labor (two days per week)	\$175,000,000
Tithe of crops, etc	60,000,000
Male tribute, timber	7,000,000
Female tribute, spun wool	9,000,000
Fowl, eggs, butter	5,000,000
1 011, 0865, 544,000	

Total.....\$256,000,000

There were 7.000,000 serfs, whose tribute averaged more than \$35 per head, which was, in fact, the rent of their farms. Some Bohemian nobles had as many as 10,000 serfs. The redemption was effected by giving the nobles 5 per cent. Gover. ment scrip, and land then rose 50 per cent. in value.

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German Serfs.

In 1848 the state took 60,000,000 acres from the nobles, leaving them still 25,000,000 acres, and gave the former among the serfs. Indemnity as follows: 1. Government scrip, \$900 for each serf family, to nobleman. 2. Land tax, \$15 per annum, transferred to peasant. 3. Interest, \$35 per annum for 47 years, to be paid by peasant to the state, being 4 per cent. on cost of redemption.

Famous Giants and Dwarfs.

The most noted giants of ancient and modern times are as follows:

Name.			
Goliath	.Palestine	. 11.0	B.C. 1063.
Galbara	.Rome	9.9	Claudius Cæsar.
John Middleton			A.D. 1578.
Frederick's Swede			
Cujanus	Finland	7.9	
Gilly			
Patrick Cotter			1806.
Chang Gow			1880.

Many of the great men of history have been rather small in stature. Napoleon was only about 5 ft. 4 in., Washington was 5 ft. 7 in. One of the greatest of American statesmen, Alexander H. Stephens, never excelled 115 pounds in weight, and in his old age his weight was less than 100 pounds.

The more notable human mites are named below:

Name.	Height, inches.	Date of Birth.	Place of Birth.
Count Borowlaski	39	1739	Warsaw.
Tom Thumb (Chas. S	.Stratton) 31	1837	New York.
Mrs. Tom Thumb	32	1842	66
Che-Mah	25	1838	China.
Lucia Zarate	20	1863	Mexico.
General Mite	21	1864	New York.

Evictions in Ireland.

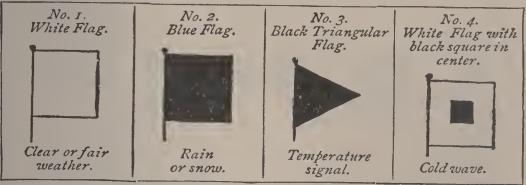
The total number of families evicted in Ireland for 33 years is 482,000 as below:

702,000			
Years.	Evicted.	Re-admitted.	Net Evictions.
1849–51	263,000	73,000	190,000
1852-60		28,000	82,000
1861–70	47,000	8,000	39,000
1871-80	41,000	6,000	35,000
1881–82	21,000	4,000	17,000
Total	482,000	119,000	363.000

The number of persons actually evicted was over two millions (say 70,000 per annum).

WIND AND WEATHER SIGNALS.

On March 1, 1887, a new system of weather signals was introduced by the United States Signal Office of the War Department, and has since been in use at all the stations of the service. The flags adopted for this purpose are four in number, and of the form and dimensions indicated below:



Number 1, white flag, six feet square, indicates clear or fair weather. Number 2, blue flag, six feet square, indicates rain or snow. Number 3, black triangular flag, four feet at the base and six feet in length, always refers to temperature; when placed above numbers 1 or 2 it indicates warmer weather; when placed below numbers 1 or 2 it indicates colder weather; when not displayed, the indications are

EXAMPLE. BLUE Cold wave, followed by rain or snow, succeeded by fair weather: colder.

that the temperature will remain stationary, or that the change in temperature will not vary five degrees from the temperature of the same hour of the preceding day. Number 4, white flag, six feet square, with black square in center, indicates the approach of a sudden and decided fall in temperature. This signal is usually ordered at least twenty-four hours in advance of the cold wave. It is not dis-played unless a temperature of forty-five de-grees, or lower, is expected. When number 4 is displayed, number 3 is always omitted.

When displayed on poles, the signals are arranged to read downward; when displayed from horizontal supports, a small streamer is attached to indicate the point from which the signals are to be read.

Interpretation of Displays.

No. 1, alone, indicates fair weather, stationary temperature.

No. 2, alone, indicates rain or snow, stationary temperature.

No. 1, with No. 3 below it, indicates fair weather, colder.
No. 2, with No. 3 above it, indicates warmer

weather, rain or snow. No. 1, with No. 4 below it, indicates fair weather, cold wave.

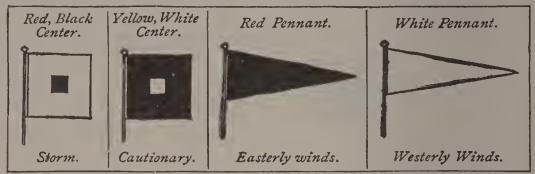
No. 3, with Nos. z and 2 below it, indicates warmer, fair weather, followed by rain or snow.

Storm, Cautionary and Wind-Direction Signals,

A red flag with a black center indicates that the storm is expected to be of marked violence. A yellow flag with a white center indicates that the winds expected will not be so severe, but well-found; seaworthy vessels can meet them without danger. The red pennant indicates easterly winds; that is, from the northast to south inclusive, and that generally the storm center is approaching. If

WIND AND WEATHER SIGNALS

above cautionary or storm-signal, winds from northeast quadrant are more probable; below, winds from southeast quadrant. The white pennant indicates westerly winds; that is, from north to southwest inclusive, and that generally the storm center has passed. If above cautionary or storm-signal, winds from northeast quadrant are more probable; if below, winds from southwest quadrant.



Time Difference Between the City of New York and the Principal Foreign Cities.

н. м.	FASTER THAN N. Y. H. M.	н. м.	SLOWER THAN N. Y.
Antwerp 5 13 Berlin 5 50 Bremen 5 31 Brussels 5 14 Buenos Ayres. 1 02 Calcutta 10 50	Dublin 4 31 Edinburgh 4 43 Geneva 5 21 Hamburg 5 36 Liverpool 4 44 London 4 56	Melbourne	Canton

Actual New York mean time is given.

The Climates of the United States.

Mean annual temperature, Fahrenheit, at places named.

	Mobile	66°	Mississippi	Jackson	64°
Alaska	Sitka	46	Missouri	St. Louis	55
Arizona	Tucson	69	Montana	Helena	43
	Little Rock	63	Nebraska	Omaha	49
	San Francisco	55		C'p Winfi'ld Scott	50
Colorado	Denver	48		Concord	46
	Hartford	50		Trenton	53
Dakota	Fort Randall	47		Santa Fe	51
Delaware	Willmington	$\overline{53}$	New York		48
	Washington	55	North Carolina		59
	Jacksonville	69	Ohio		53
	Atlanta	58		Portland	53
	Fort Boise	$5\tilde{2}$		Harrisburg	54
	Springfield	50		Providence	48
	Indianapolis	51	South Carolina	1	62
	Fort Gibson	60	Tennessee		58
	Des Moines	49	Texas		67
	Leavenworth	51		Salt Lake City	52
	Louisville	56		Montpelier	43
	New Orleans	69		Richmond	57
	Augusta	45		Steilacoom	51
	Baltimore	54	West Virginia	Romney	$5\overline{2}$
Massachusetts		48	Wisconsin	Madison	45
	Detroit	47		Fort Bridger	41
	St. Paul	42	'''	Total Dilagon,	-24
		14			

POPULAR VOTE

For Presidential candidates from 1824 to and including 1888. Prlor to 1824 electors were chosen by the Legislatures of the different

1824—J. Q. Adams had 105, 321 to 155,872 for Jackson, 44,282 for Crawford, and 46,587 for Clay. Jackson over Adams, 50,551. states. Adams less than combined vote of others, 140,869. Adams elected by House of Representatives.

1828-Jakeson had 647,231 to 509,097 for J. Q. Adams. Jackson's majority, 138,134.

1832—Jackson had 687,502 to 530,189 for Clay, and 33,108 for Floyd and Wirt combined. Jackson's majority, 124,205.
1836—Van Buren had 761,549 to 736,656, the combined vote for Harrison, White, Webster and Maguin. Van Buren's majority, 24,-**8**93.

1840—Harrison had 1,275,017 to 1,128,702 for Van Buren, and

7,059 for Birney. 1844—Polk had 1.337,243 to 1,299,068 for Clay and 62,300 for Birney. Polk over Clay, 38,175. Polk less than others combined,

1848—Taylor had 1,360,101 to 1,220,544 for Cass, and 291,263 for Van Buren. Taylor over Cass, 139,577. Taylor less than others combined, 151,706.

1852—Pierce had 1,601,474 to 1,386,578 for Scott and 156,149

for Hale. Pierce over all, 58,747.

1856—Buchanan had 1,838,169 to 1,341,264 for Fremont and 874,534 for Fillmore. Buchanan over Fremont, 496,905. Buchanan less than combined vote of others, 377,629.

1860—Lincoln had 1.866,352 to 1.375,157 for Douglas, 845,763 for Breckenridge and 589,581 for Bell. Lincoln over Breckenridge,

491,195. Lincoln less than Douglas and Breckenridge combined, 354,568. Lincoln less than combined vote of all others, 944,149.

1864—Lincoln had 2,216,067 to 1,808,025 for McClellan (eleven states not voting, viz.: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia). Lincoln's majority, 408,342.

1868—Grant had 3,015,071 to 2,709,613 for Seymour (three states not voting, viz.: Mississippi, Texas and Virginia). Grant's majority, 305,458.

majority, 305,458.

1872—Grant had 3,597,070 to 2,834,079 for Greeley, 29,408 for O'Conor and 5,608 for Black. Grant's majority. 729,975.

1876—Hayes had 4,033,950 to 4,284,885 for Tilden, 81,740 for Cooper, 9,522 for Smith and 2,636 scattering. Tilden's majority over Hayes, 250,935. Tilden's majority of the entire vote cast, 157,037. Hayes less than the combined vote of others, 344,833.

1880—Garfield had 4,449,053 to 4,442,035 for Hancock, 307,306 for Weaver and 12.576 scattering. Garfield over Hancock, 7,018.

Garfield less than the combined vote of others, 313,864.

1884—Cleveland had 4,874,986 to 4,851,981 for Blaine, 150,369 for St. John, 173,370 for Butler. Cleveland had over Blaine 23,006.

1888—Harrison had 5,441,902 to 5,538,560 for Cleveland, 249,-937 for Fisk, 147,521 for Streeter, 3,673 for Cowdrey, 1,591 for Curtis and 9,845 scattering. Harrison had 96,658 less than Cleveland. land.

1892—Cleveland had 5,556,918 to 5,162,874 for Harrison, 1,055,-

1892—Cleveland had 5,556,918 to 5,162,874 for Harrison, 1,055,424 for Weaver, 264,066 for Bidwell, and 21,164 for Wing.
1896—McKinley (Rep.) had 7,107,822; Bryan and Sewall (Dem.) 6,288,866; Bryan & Watson (Peo.) 222,207; Levering (Pro.) 130,683; Bentley (Nat.) 13,950; Matchett (Soc.) 33,545; Palmer (Gold Dem.) 133,800. Total vote, 14,073,285.
1900—McKinley had 7,217,810 to 6,357,826 for Bryan, 208,791 for Woolley, 50,218 for Barker, 87,769 for Debs, 39,944 for Malloney, 518 for Leonard and 5,098 for Ellis. Of the whole vote McKinley received 51.66 per cent and Bryan 45.51 per cent.

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POPULAR VOTE FOR PRESIDENTIAL CANDIDATES, 1904.

Verified and Corrected from Official Reports.

	Roosevelt. Republican.	rat.	s. ist.	Swallow. Prohibition.	Watson. Populist.	Corregan. Soc. Labor.	Plural	ITIES.	ELECT	ORAL
STATE.	sev	Parker. Democrat.	Debs. Socialist.	alle	atsc	57 J	1:4	er.	ابية	er.
	000	Pa	TO	W.C.	Wo I	000	vei	Parker	Roose velt.	Parker
	K K		01	676		S	Roose-	6	R	P3
Alabama	22,472	79,857	853	612	5,051		•••••	57,385		11
Arkansas	22,472 46,860	64,434	r ;816	993	2,318		115,822	17,574	io	9
California	205,226	89,404	29,535	7,380 3,438	824	335	24.582		5	
Colorado Connecticut	134,087	72,909	4,3°4 4,543		494		34,582 38,180		7	
Delaware	23,712	19,347	146		51		4,365		3	
Florida	8,314	27 016	2.237	5	1,605			18,732		5
Georgial	24,003 47,783	83,472	197				20, 202	59,409	2	13
Idaho	47.703	18,480	4,949 69,225			4,698	29,303		3 27	
Indiana	632,645	274,345	12,013	23.496	2.444		93.944		15	
Iowa	307,907	149,141	14.847	11,601	2,207		93,944	•••••	13	
Kansas	212,055	86,174	15,869	7,301	6,253		126,781	11,893	10	12
Kentucky	205,277		3,602		2,511	596	******	42,502		13
Louisiana Maine	5,205				338		36,807	4-17-3	6	
*Marylandl	109,494	109,446	2.247	3,034			36,807 48		1	7
Massachusetts	109,494 257,822	165,746	13,604	4,279	1,294		92,076		16	
Michigan	261,000	134,170	8,946	13,324 5,603	1,144		227,696 146,347		14	
Minnesota Mississippi	214,978	08,0311	6,376		2,004 1,424		140,347			10
Missouri	3,168	296,312	13,000	7,191	4,226	1.675	25,137		18	
Montana	34,932	21,773	5,676)] 335	1,520	208	12.150		3	
Nebraska	138,558	52,921	7,412	2 6,323	20,518		85,637			
Nevada	0,951	11 3,011	934		.1 330.		3,340		3	
New Hampshire.	34,100	33,995	1,090	6,845	3.705	2,680	20,185 80,598		12	
New Jersey New York	859,537	683,981	9,587 36,883	(l 20. 707)	7,459		175,552		39	
North Carolina	82,470	124,121	124	301	1 819		11	1 41 651		12
North Dakota	52,058	[4,290]				2 622	38,362		4	
Ohio Oregon	600,005	344,674				2,633	255,421 42,934		23	
Pennsylvania	840,949	335,430		2 23.717	7	2,211	505,519		34	
Rhode Island	41,605	24.839	956	768		488	16,766		4	
South Carolina.:	22,271	52,863	22	2	. 1		50.774			9
South Dakota	72,003	21,969	3,138	2.965	1.240		50,114		4	12
Tennessee Texas	105,369		1,371 2,791			2 421		115,958		18
Utah	62,446	33,413	5,767	7			29,033		3	
Vermont	40,459 47,880	9,777	5,767 854	792			29,013 30,682		3 4	
Virginia	47,880	80,648	218	1,382			70.68	32,768	. :	12
Washington West Virginia	100,698	28,015	10,000				72,683 31,758		5 7	1
Wisconsin	280,164	124,107	28,220	9.770			156,057	1	13	
Wyoming	20,489		1,007	208			11,559		3	
						22 207	251 250	504.021		
Total	7,642,897	5,093,566	397,209	245,802	113,415	30,907	3,054,252	504,921	336	140
						1			1	

Total popular Vote, 13,523,796. Roosevelt's plurality, 2, 549,331.

WEIGHTS OF DIAMONDS AND FINENESS OF GOLD.

The weight of diamonds and other precious stones is expressed in carats, grains and quarter-grains. The grains are pearl grains, one of which is equal to four-fifths of a troy grain. Four quarter-grains make one grain and four grains make one carat. A carat is therefore equal to four-fifths of four troy grains, or 3.2.

The fineness of gold is also expressed in carats. Pure gold is said to be twenty-four carats fine. If it contains eight parts of a baser metal or alloy it is only sixteen carats fine. The carats therefore indicate the proportion of pure gold to alloy. Most of the gold used by jewelers is about fourteen carats fine, having ten parts of alloy.

THE SINGLE TAX.

This idea was first formulated by Mr. Henry George in 1879, and has grown steadily in favor. Single-tax men assert as a fundamental principle that all men are equally entitled to the use of the earth; therefore, no one should be allowed to hold valuable land without paying to the community the value of the privilege. They hold that this is the only rightful source of public revenue, and they would therefore abolish all taxation—local, State and national—except a tax upon the rental value of land exclusive of its improvements, the revenue thus raised to be divided among local, State and general governments, as the revenue from certain direct taxes is now divided between local and State governments.

The single tax would not fall on all land, but only on valuable land, and on that in proportion to its value. It would thus be a tax, not on use or improvements, but on ownership of land, taking what would otherwise go to

the landlord as owner.

In accordance with the principle that all men are equally entitled to the use of the earth, they would solve the transportation problem by public ownership and control of all highways, including the roadbeds of railroads,

leaving their use equally free to all.

The single-tax system would, they claim, dispense with a horde of tax-gatherers, simplify government, and greatly reduce its cost; give us with all the world that absolute free trade which now exists between the States of the Union; abolish all taxes on private issues of money; take the weight of taxation from agricultural districts, where land has little or no value apart from improvements, and put it upon valuable land, such as city lots and mineral deposits. It would call upon men to contribute for public expenses in proportion to the natural opportunities they monopolize, and make it unprofitable for speculators to hold land unused or only partly used, thus opening to labor unlimited fields of employment, solving the labor problem and abolishing involuntary poverty.

VALUE OF FOREIGN COINS.

Proclaimed by law, January 1, 1891.

Argentine Republic Peso. Gold and silver. \$.96\frac{5}{10}\$ Austria Florin Silver. .38\frac{1}{10}\$ Belgium Franc Gold and silver .19\frac{3}{0}\$ Bolivia Boliviano Silver. .77\frac{1}{0}\$ Brazil Milreis Gold .54\frac{1}{0}\$ Canada Dollar Gold .1.00 Chili Peso Gold and silver .91\frac{2}{10}\$ China Tael Silver .92\frac{1}{10}\$ Cuba Peso Gold and silver .92\frac{1}{10}\$ Ecuador Peso Silver .77\frac{1}{10}\$ Egypt Piaster Gold .04\frac{1}{10}\$ Franc Franc Gold and silver .19\frac{7}{10}\$ Gold and silver .94\frac{7}{10}\$.94\frac{7}{10}\$ Franc Gold and silver .94\frac{7}{10}\$ Gold and silver .94\frac{7}{10}\$	Country.	Monetary Unit.	Standard.	Value in U. S. Money.
Gical Dillam	Austria	Florin Franc Boliviano Milreis Dollar Peso Tael Peso Crow 1 Peso Piaster Franc	Silver	$ \begin{array}{c} .38\frac{1}{10} \\ .19\frac{3}{10} \\ .77\frac{1}{10} \\ .54\frac{1}{10} \\ 1.00 \\ .91\frac{2}{10} \\ 1.27 \\ .92\frac{6}{10} \\ .26\frac{8}{10} \\ .77\frac{1}{10} \\ .04\frac{1}{10} \\ .197\frac{2}{10} \\ .1978\frac{2}{10} \\ .1978\frac{2}{10} \\ .19788\frac{2}{10} \\ .1978888$

Country.	Monetary Unit.	Standard.	Value in U. S. Money.
Greece German Empire Hayti India Italy Japan Liberia Mexico Netherlands Norway Peru Portugal Russia Sandwich Islands Spain Sweden Sweden Switzerland Tripoli Turkey U. S. of Colombia Venezuela	Dollar Dollar Florin. Crown Sol. Milreis. Rouble Dollar Peseta. Crown Franc.	Gold and silver. Gold Silver Gold Gold Gold and silver. Gold and silver. Gold and silver. Gold and silver. Silver.	. 191 3 0 . 261 8 0 . 19136 . 6915

SOME FACTS WORTH KNOWING.

The Capital of the United States has been located at different times at the following places: At Philadelphia from Sept. 5, 1774, until Dec., 1776; at Baltimore from Dec. 20, 1776, to March, 1777; at Philadelphia from March 4, 1777, to Sept., 1777; at Lancaster, Pa., from Sept. 27, 1777, to Sept. 30, 1777; at York, Pa., from Sept. 30, 1777, to July, 1778; at Philadelphia from July 2, 1778, to June 30, 1783; at Princeton, N. J., June 30, 1783, to Nov. 20, 1783; Annapolis, Md., Nov. 26, 1783, to Nov. 30, 1784; Trenton from Nov., 1784, to Jan., 1785; New York from Jan. 11, 1785, to 1790; then the seat of government was removed to Philadelphia where it remained until 1800, since which time it has been in Washington.

Tomato in Bright's Disease. When Thomas Jefferson brought the tomato from France to America, thinking that if it could be induced to grow bountifully it might make good feed for hogs, he little dreamed of the benefit he was conferring upon posterity. A constant

diet of raw tomatoes and skim-milk is said to be a certain cure for Bright's disease. Gen. Schenck, who, when Minister to England, became a victim to that complaint, was restored to health by two years of this regimen. With many persons the tomato has much the same effect upon the liver as a small blue pill, and whether it is as a people we are less bilious than in former years, or that the doctors of the new school practice less severe remedies than did those of the past, it is certain that mercury is prescribed with less frequency than of old.

Asthma. I have been a sufferer from asthma for twenty-five years, and for more than a dozen years have used the following recipe with great benefit. It is not a cure, but in my case gives almost instant relief. Take equal parts of powdered stramonium leaves and powdered belladonna leaves and mix thoroughly; to each ten ounces of the mixture add one ounce of powdered saltpeter (nitrate of potash); mix all thoroughly. I always keep some of this in a small tin box. When I wish to use it I pour a little of the powder into the cover of the box, light it with a match, cover the whole with a little paper cone with the point cut off. I place the point of the cone in my mouth, and breathe the smoke into my lungs with the air. The first trial is very hard, it almost strangles, but if persevered in will give great relief. This is much better than stramonium alone. The saltpeter makes it burn freely, and also helps to give relief.

When my home was in northern Indiana, I used to buy the leaves in Chicago already powdered. Now I send to New York. I find it cheaper to do this than to gather and dry the leaves. It is also almost impossible to dry and pulverize the leaves at home. By using a paper cone and breathing through it, little or no smoke is wasted, and the box and paper can be carried in the pocket and used as occasion

requires.

For Swollen Feet. Policemen, mail carriers, and others whose occupation keeps them on their feet a great deal, often are troubled with chafed, sore and blistered feet, especially in extremely hot weather, no matter how comfortably their shoes may fit. A powder is used in the German army for sifting into the shoes and stockings of the foot soldiers, called "Fusstreupulver," and consists of 3 parts salicylic acid, 10 parts starch and 87 parts pulverized soapstone.

Rules for Fat People and for Lean. To increase the weight: Eat to the extent of satisfying a natural appetite, of fat meats, butter, cream, milk, cocoa, chocolate, bread, potatoes, peas, parsnips, carrots, beets, farinaceous foods, as Indian corn, rice, tapioca, sago, corn starch, pastry, custards, oatmeal, sugar, sweet wines, and ale. Avoid acids. Exercise as little as possible, and sleep all you can.

To reduce the weight: Eat, to the extent of satisfying a natural appetite, of lean meat, poultry, game, eggs, milk moderately, green vegetables, turnips, succulent fruits, tea or coffee. Drink lime juice, lemonade, and acid drinks. Avoid fat, butter, cream, sugar, pastry,

rice, sago, tapioca, corn starch, potatoes, carrots, beets, parsnips, and sweet wines.

Wonders of the Human Body. The skin contains more than two million openings, which are the outlets of an equal number of sweat-glands. The human skeleton consists of more than two hundred distinct bones. An amount of blood equal to the whole quantity in the body passes through the heart once every minute. The full capacity of the lungs is about three hundred and twenty cubic inches. About two-thirds of a pint of air is inhaled and exhaled at each breath in ordinary respiration. The stomach daily produces nine pounds of gastric juice for digestion of food; its capacity is about five pints. There are more than five hundred separate muscles in the body, with an equal number of nerves and blood-vessels. The weight of the heart is from eight to twelve ounces. It beats one hundred thousand times in twenty-four hours. Each perspiratory duct is onefourth of an inch in length, of the whole about nine miles. average man takes five and one-half pounds of food and drink each day, which amounts to one ton of solid and liquid nourishment annually. A man breathes eighteen times a minute, and three thousand cubic feet, or about three hundred and seventy-five hogsheads of air every hour of his existence.

Changes in the Language. Few, scholars even, are aware of the great changes through which the English language has passed in successive centuries. Following are specimens of the Lord's Prayer, as

used at various periods in English history:

A. D. 1158.—Fader ur heune, haleweide beith thi neune, cumin thi kuneriche, thy wille beoth idon in heune and in erthe. The euryeu dawe briend, gif ous thilk dawe. And vorzif uer detters as vi yorsifen ure dettoures. And lene us nought into temtation, bot delyvor eus of evel. Amen.

A. D. 1300.—Fader ure in heavene. Halewyn be thi name, thi kingdom come, thy wille be done as in heavene and earthe—Oua urche days bred give us to daye. And forgive oure dettes as we forgive oure dettoures. And lead us nor in temptation, bote delyveor us of yvil. Amen.

A. D. 1370.—Oure fadir that art in heunes hallowed be the name this kingdom come to, be the wille done in erthe as in heune, geve to, us this day oure breed oure other substance forgene to us our dettis as we forgauen to oure dettouris, lede us not into temptation; but

delyeur us yvel. Amen.

A. D. 1524.—O oure father which arte in heven, hallowed be thy name. Let thy kingdom come. Thy wyoll be fulfilled as well in earth as it is in heven. Give us this daye oure dayly brede. And forgive us our trespaces even as we forgive our trespacers. And lead us not into temptation, but delyver us from vell. Fyr thyne is the kingdome and the power and the glorye for ever. Amen.

A. D. 1561.—Our father which art in heauen, sanctified be thy name. Let thy kingdom come. Thy will be done, as in heauen, in earth also. Give us today our superstantial bread. And forgive us our dettes as we forgive our detters. And lead us not into temptation. But delivere us from evil. Amen.

A. D. 1711.—Our father which art in heauen, hallowed be thy name. Thy kingdom come. Thy will be done in earth as it is in heauen. Give us this day our dayley bread. And forgive us our debts as we forgive our debtors. And lead us not into temptation, but deliver us from evil. For thyne is the kingdome, and the power,

and the glory forever. Amen.

How to Put on Gloves. A great deal depends on the first puting on of gloves. Have the hands perfectly clean, dry and cool, and never put on new gloves while the hands are warm or damp. When a person is troubled with moist hands, it is well to powder them before trying on the gloves; but in most cases, if the hands are cool and dry, this is not needed. First, work on the fingers, keeping the thumb outside of the glove, and the wrist of the glove turned back. When the fingers are in smoothly, put in the thumb, and work the glove on very carefully; then placing the elbow on the knee, work on the hand. When this is done, smooth down the wrist, and button the second button first, then the third, and so on to the end. smooth down the whole glove and fasten the first button. Fastening the first button last, when putting on a glove for the first time, makes a great deal of difference in the fit, although it may seem but a very little thing. It does not strain the part of the glove that is easiest to strain at first, and prevents the enlarging of the button-hole, either of which is sure to take place if you begin at the first button to fasten the glove.

When removing your gloves, never begin at the tips of the fingers to pull them off, but turn back the wrist and pull off carefully, which will, of course, necessitate their being wrong side out. Turn them right side out, turn the thumbs in, smooth them lengthwise in as near as possible the shape they would be if on the hands, and place them away with a strip of white Canton flannel between if the gloves are light, but if dark-colored the flannel may be omitted. Never roll gloves into each other in a wad, for they will never look so well after. There is always some moisture in them from the hands; consequently, when rolled up, this moisture has no chance of drying, and must work into the gloves, making them hard and stiff, and of very little use

after, as far as looks or fit is concerned.

When Quinine Will Break Up a Cold. It is surprising, says a family physician, how certainly a cold may be broken up by a timely dose of quinine. When first symptoms make their appearance, when a little languor, slight hoarseness and ominous tightening of the nasal membranes follow exposure to draughts or sudden chill by wet, five

grains of this useful alkaloid are sufficient in many cases to end the trouble. But it must be done promptly. If the golden moment passes, nothing suffices to stop the weary sneezing, handkerchief-using, red nose and woe-begone-looking periods that certainly follow.

A Mistaken Idea. The old adage, "Feed a cold and starve a fever," is characterized by the *Journal of Health* as very silly advice. If anything, the reverse would be nearer right. When a person has a severe cold it is best for him to eat very lightly, especially during the first few days of the attack.

Bathing. There has been a great deal written about bathing. The surface of the skin is punctured with millions of little holes called pores. The duty of these pores is to carry the waste matter off. For instance, perspiration. Now, if these pores are stopped up they are of nouse, and the body has to find some other way to get rid of its impurities. Then the liver has more than it can do. Then we take a liver pill when we ought to clean out the pores instead. housewife is very particular to keep her sieves in good order; after she has strained a substance through them they are washed out carefully with water, because water is the best thing known. That is the reason water is used to bathe in. But the skin is a little different from a sieve, because it is willing to help along the process itself. needs is a little encouragement and it will accomplish wonders. the skin wants is rubbing. If you should quietly sit down in a tub of water and as quietly get up and dry off without rubbing, your skin wouldn't be much benefited.

The water would make it a little soft, especially if it was warm. But rubbing is the great thing. Stand where the sunlight strikes a part of your body, then take a dry brush and rub it, and you will notice that countless little flakes of eutiele fly off. Every time one of these flakes is removed from the skin your body breathes a sigh of relief. An eminent German authority contends that too much bathing is a bad thing. There is much truth in this. Soap and water are good things to soften up the skin, but rubbing is what the skin wants. Every morning or every evening, or when it is most convenient, wash the body all over with water and a little ammonia, or anything which tends to make the water soft; then rub dry with a towel, and after that go over the body from top to toe with a dry brush. Try this for two or three weeks, and your skin will be like velvet.

Tea and Coffee. Tea is a nerve stimulant, pure and simple, acting like alcohol in this respect, without any value that the latter may possess as a retarder of waste. It has a special influence upon those nerve centers that supply will power, exalting their sensibility beyond normal activity, and may even produce hysterical symptoms, if carried far enough. Its active principle, theine, is an exceedingly powerful drug, chiefly employed by nerve specialists as a pain destroyer, possessing the singular quality of working toward the surface. That is to

say, when a dose is administered hypodermically for sciatica, for example, the narcotic influence proceeds outward from the point of injection, instead of inward toward the centers, as does that of morphia, atropia, etc. Tea is totally devoid of nutritive value, and the habit of drinking it to excess, which so many American women indulge in, particularly in the country, is to be deplored as a cause of our American nervousness.

Coffee, on the contrary, is a nerve food. Like other concentrated foods of its class, it operates as a stimulant, also but, upon a different set of nerves from tea. Taken strong in the morning, it often produces dizziness and that peculiar visual sympton of overstimulus which is called musca volitantes—dancing flies. But this is an improper way to take it, and rightly used it is perhaps the most valuable liquid addition to the morning meal. Its active principle, caffeine, differs in all physiological respects from theine, while it is chemically very closely allied, and its limited consumption makes it impotent for harm.

The Shrinkage of Flannel. To keep flannels as much as possible from shrinking and felting, the following is to be recommended: Dissolve one ounce of potash in a bucket of water, and leave the fabric in it for twelve hours. Next warm the water, with the fabric in it, and wash without rubbing, also draw through repeatedly. Next immerse the flannel in another liquid containing one spoonful of wheat flour to one bucket of water, and wash in a similar manner.

Ancient Cities. Nineveh was 15 miles long, 8 wide and 40 miles round, with a wall 100 feet high, and thick enough for 3 chariots abreast. Babylon was 50 miles within the walls, which were 87 feet thick and 350 high, with 100 brazen gates. The Temple of Diana, at Ephesus, was 420 feet to the support of the roof. It was 100 years in building. The largest of the pyramids is 461 feet high, and 653 on the sides; its base covers 11 acres. The stones are about 30 feet in length, and the layers are 380. It employed 330,000 men in building. The labyrinth, in Egypt, contains 300 chambers and 250 halls. Thebes, in Egypt, presents ruins 27 miles round. Athens was 25 miles round, and contained 350,000 citizens and 400,000 slaves. The Temple of Delphos was so rich in donations that it was plundered of \$500,000, and Nero carried away 200 statues. The walls of Rome were 13 miles round.

The Process of Embalming. The process of embalming is as follows, and is called the "Brunelli process": The circulatory system is cleansed by washing with cold water till it issues quite clear from the body. This may occupy from two to five hours. Alcohol is injected, so as to abstract as much water as possible. This occupies about a quarter of an hour. Ether is then injected to abstract the fatty matter. This occupies from two to ten hours. A strong solution of tannin is then injected. This occupies for imbibition from two to ten hours. The body is then dried in a current of warm air

passed over heated chloride of calcium. This may occupy two to five hours. The body is then perfectly preserved, and resists decay. The Italians exhibit specimens which are as hard as stone, retain the shape perfectly, and are equal to the best wax models. It will be observed in this process that those substances most prone to decay are removed, and the remaining portions are converted by the tannin into a substance resembling leather.

To Straighten Round Shoulders. A stooping figure and a halting gait, accompanied by the unavoidable weakness of lungs incidental to a narrow chest, may be entirely cured by a very simple and easily-performed exercise of raising one's self upon the toes leisurely in a perpendicular position several times daily. To take this exercise properly one must take a perfectly upright position, with the heels together and the toes at an angle of forty-five degrees. drop the arms lifelessly by the sides, animating and raising the chest to its full capacity muscularity, the chin well drawn in, and the crown of the head feeling as if attached to a string suspended from the ceiling above. Slowly rise upon the balls of both feet to the greatest possible height, thereby exercising all the muscles of the legs and body; come again into standing position without swaying the body backward out of the perfect line. Repeat this same exercise, first on one foot, then on the other. It is wonderful what a straightening-out power this exercise has upon round shoulders and crooked backs, and one will be surprised to note how soon the lungs begin to show the effect of such expansive development.

Care of the Eyes. In consequence of the increase of affections of the eye, a specialist has recently formulated the following rules to be observed in the care of the eyes for school work. A comfortable temperature, dry and warm feet, good ventilation; clothing at the neck and on other parts of the body loose; posture erect, and never read lying down or stooping. Little study before breakfast or directly after a heavy meal; none at all at twilight or late at night; use great caution about studying after recovery from fevers; have light abundant, but not dazzling, not allowing the sun to shine on desks or on objects in front of the scholars, and letting the light come from the left hand or left and rear; hold book at right angles to the line of sight or nearly so; give eyes frequent rest by looking up. The distance of the book from the eye should be about fifteen inches. usual indication of strain is redness of the rim of the eyelid, betokening a congested state of the inner surface, which may be accompanied with some pain. When the eye tires easily rest is not the proper remedy, but the use of glasses of sufficient power to aid in accommodating the eye to vision.

How and When to Drink Water. According to Doctor Leuf, when water is taken into the full or partly full stomach, it does not mingle with the food, as we are taught, but passes along quickly be-

tween the food and lesser curvative toward the pylorus, through which it passes into the intestines. The secretion of mucus by the lining membrane is constant, and during the night a considerable amount accumulates in the stomach; some of its liquid portion is absorbed, and that which remains is thick and tenacious. If food is taken into the stomach when in this condition, it becomes coated with this mucus, and the secretion of the gastric juice and its action are delayed. These facts show the value of a goblet of water before breakfast. This washes out the tenacious mucus, and stimulates the gastric glands to secretion. In old and feeble persons water should not be taken cold, but it may be with great advantage taken warm or hot. This removal of the accumulated mucus from the stomach is probably one of the reasons why taking soup at the beginning of a meal has been found so beneficial.

What Causes Coughs. Cold and coughs are prevalent throughout the country, but throat affections are by far more common among business men. Every unfortunate one mutters something about the abominable weather and curses the piercing wind. Much of the trouble, however, is caused by overheated rooms, and a little more attention to proper ventilation would remove the cause of suffering. Doctor J. Ewing Mears, who is thus afflicted, said to an inquirer: "The huskiness and loss of power of articulation so common among us are largely due to the use of steam for heating. The steam cannot be properly regulated, and the temperature becomes too high. person living in this atmosphere has all the cells of the lungs open, and when he passes into the open air he is unduly exposed. affliction is quite common among the men who occupy offices in the new buildings which are fitted up with all modern improvements. The substitution of electric light for gas has wrought a change to which people have not yet adapted themselves. The heat arising from a number of gas jets will quickly raise the temperature of a room, and unconsciously people relied upon that means of heating to some ex-Very little warmth, however, is produced by the electric light, and when a man reads by an incandescent light he at times finds himself becoming chilly, and wonders why it is. Too hot during the day and too cold at night are conditions which should be avoided."

Facts not Generally Known.

Spinach is a Persian plant.
Horse-radish is a native of England.
Melons were found originally in Asia.
Filberts originally came from Greece.
Quinces originally came from Corinth.
The turnip originally came from Rome.
The peach originally came from Persia.
Sage is a native of the South of Europe.
Sweet marjoram is a native of Portugal.

TO TELL THE AGE OF ANY PERSON.

How to Tell the Age of Any Person.

Hand this table to a young lady, and request her to tell you in which column or columns her age is contained, and add together the figures at the top of the columns in which her age is found, and you have the secret. Thus, suppose her age to be seventeen, you will find that number in the first and fifth columns; add the first figures of these two colums.

WO C(1	ишъ.				
1	2	4	8	16	32
3	3	5	9	17	33
5	6	6	10	18	34
7	7	7	11	19	35
9	10	12	12	20	36
11	11	13	13	21	37
13	14	14	14	22	38
13 15	15	15	15	23	39
17	18	20	24	24	40
17 19	19	21	25	25	41
21	22	20 21 22 23	$\frac{25}{26}$	26	42
23	23	23	27	27	43
25	26	28 29	28	28	44
27	27	29	29	29	45
29	30	30	30	30	46
31	31	31	31	31	47
33	34	36	40	48	48
35	35	37	41	49	49
37	38	38	42	50	50
39	39	39	$\begin{array}{c} 43 \\ 44 \end{array}$	51	51
41	42	44	44	52	52
43	43	45	45	53	53
45	46	46	46	54	54
47	47	47	47	55	55
49	50	52	56	56	56
51	51	53	57	57	57
53	54	54	58	58	58
55	55	55	59	59	59
57	58	60	60	60	60
59	59	61	61	61	61
61	62	62	62	62	62
63	63	63	63	63	63

Various Sizes of Type.

It requires 205 lines of diamond type to make 12 inches; of pearl, 178; of agate, 166; of nonpareil, 143; of minion, 128; of brevier, $112\frac{1}{2}$; of bourgeois, $102\frac{1}{2}$; of long primer, 89; of small pica, 83; of pica, $71\frac{1}{2}$; of english, 64.

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FEMININE HEIGHT AND WEIGHT.

It is often asked how stout a woman ought to be in proportion to her height. A very young girl may becomingly be thinner than a matron, but the following table gives a fair indication of proper proportions:

Pounds.

Five feet in height..about 100
Five feet 1 inch.... " 106
Five feet 2 inches... " 113
Five feet 3 inches... " 119
Five feet 4 inches... " 130
Five feet 5 inches... " 138
Five feet 5 inches... " 138
Five feet 6 inches... " 144

Six feet 1 inch..... " 180
Six feet 1 inch.... " 186

A LADY'S CHANCE OF MARRYING.

Every woman has some chance to marry. It may be one to fifty, or it may be ten to one that she will. Representing her entire chance at one hundred at certain points of her progress in time, it is found to be in the following ratio:

tween	the ages	of 15 and 20	year	S	14½ per cent
4.6	6.6	20 and 25	6.6	• • • • • • • • •	52 per cent
6.6	6.6	25 and 30	6.6	• • • • • • • • •	18 per cent
6.6	6.6	30 and 35	6.6	* * * * * * * * * * * * * * * * * * * *	15½ per cent
4.6	6.6	35 and 40	6.6		
6.6	6.6	40 and 45	46	* * * * * * * * * * * * * * * * * * * *	3¾ per cent
6.6	6.6		6.6	•••••	
6.6	6.6	45 and 50	6.6	34 of	
		50 and 56		½ of	1 per cent
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After sixty it is one-tenth of one percent, or one chance in a thousand.

WEDDING ANNIVERSARIES.

A CURE FOR LOVE.

Take twelve ounces of dislike, one pound of resolution, two grains of common sense, two ounces of experience, a large sprig of time, and three quarts of cooling water of consideration. Set them over a gentle fire of love, sweeten it with sugar of forgetfulness, skim it with the spoon of melancholy, put it in the bottom of your heart, cork it with the cork of clean conscience. Let it remain and you will quickly find ease and be restored to your senses again.

These things can be had of the apothecary at the house of

understanding next door to reason, on Prudent street.

Theosophy.

Much is said nowadays about theosophy, which is really but another name for mysticism. It is not a philosophy, for it will have nothing to do with pholosophical methods: it might be called a religion, though it has never had a following large enough to make a very strong impression on the world's religious history. The name is from the Greek word theosophia—divine wisdom—and the object of theosophical study is professedly to understand the nature of divine things. It differs, however, from both philosophy and theology even when these have the same object of investigation. For, in seeking to learn the divine nature and attributes, philosophy employs the methods and principles of natural reasoning; theology uses these, adding to them certain principles derived from revelation. Theosophy, on the other hand, professes to exclude all reasoning processes as imperfect, and to derive its knowledge from direct communication with God himself. It does not, therefore, accept the truths of recorded revelation as immutable, but as subject to modification by later direct and personal revelations. The theosophical idea has had followers from the earliest times. Since the Christian era we may class among theosophists such sects as Neo-Platonists, the Hesychasts of the Greek Church, the Mystics of mediæval times, and, in later times, the disciples of Paracelsus, Thalhauser, Bohme, Swedenborg, and others. Recently a small sect has arisen, which has taken the name of Theosophists. Its leader was an English gentleman who had become fascinated with the doctrine of Buddhism. Taking a few of his followers to India, they have been prosecuting their studies there, certain individuals attracting considerable attention by a claim to miraculous powers. It need hardly be said that the revelations they have claimed to receive have been, thus far, without element of benefit to the human race.

The Evolution Theory.

The evolution or development theory declares the universe as it now exists to be the result of a long series of changes, which were so far related to each other as to form a series of growths analogous to the evolving of the parts of a growing organism. Herbert Spencer defines evolution as a progress from the homogeneous to the heterogeneous, from general to special, from the simple to the complex elements of life, and it is believed that this process can be traced in the formation of worlds in space, in the multiplication of types and species among animals and plants, in the origin and changes of languages and literature and the arts, and also in all the changes of human institutions and society. Asserting the general fact of progress in nature, the evolution theory shows that the method of this progress has been (1) by the multiplication of organs and functions; (2) ac-

THE MIND CURE.

cording to a defined unity of plan, although with (3) the intervention of transitional forms, and (4) with modifications dependent upon surrounding conditions. Ancient writers occasionally seemed to have a glimmering knowledge of the fact of progress in nature, but as a theory "evolution" belongs to the enlightenment of the nineteenth century. Leibnitz, in the latter part of the seventeenth century, first uttered the opinion that the earth was once in a fluid condition, and Kant, about the middle of the eighteenth century, definitely propounded the nebular hypothesis, which was enlarged as a theory by the Herschels. The first writer to suggest the transmutation of species among animals was Buffon, about 1750, and other writers followed out the idea. The eccentric Lord Monboddo was the first to suggest the possible descent of man from the ape, about 1774. In 1813 Dr. W. C. Wells first proposed to apply the principle of natural selection to the natural history of man, and in 1822 Professor Herbert first asserted the probable transmutation of species of plants. In 1844 a book appeared called "Vestiges of Creation," which, though evidently not written by a scientific student, yet attracted great attention by its bold and ingenious theories. The authorship of this book was never revealed until after the death of Robert Chambers, a few years since, it became known that this publisher, whom no one would ever have suspected of holding such hetorodox theories, had actually written it. But the two great apostles of the evolution theory were Charles Darwin and Herbert Spencer. The latter began his great work, the "First Principles of Philosophy," showing the application of evolution in the facts of life, in 1852. In 1859 appeared Darwin's "Origin of Species." The hypothesis of the latter was that different species originated in spontaneous variation, and the survival of the fittest through natural selection and the struggle for existence. This theory was further elaborated and applied by Spencer, Darwin, Huxley, and other writers in Europe and America, and though to-day by no means all the ideas upheld by these early advocates of the theory are still accepted, evolution as a principle is now acknowledged by nearly all scientists. It is taken to be an established fact in nature, a valid induction from man's knowledge of natural order.

The Mind Cure.

The mind cure, otherwise known in its various subdivisions as metaphysics, Christian science, mental science, etc., is a species of delusion quite popular at the present time. Every era of the world has cherished similar delusions, for the mass of the human race, even in what are considered the educated classes, are so unfamiliar with the processes of exact reasoning that they fall a

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THE MIND CURE.

ready prey to quacks of all kinds. The fundamental idea of the mind cure system is that there is no such thing as sickness. Disease, says one of their apostles, is an error of the mind, the result of fear. Fear is only faith inverted and perverted. God, who is all good Himself, and who made everything good, cannot have been the author of any disease. As disease, therefore, is not a creation, it has no existence, and when the healer has succeeded in impressing this fact upon the mind of the patient, the cure is effected. It is curious to note into what utter absurdities the need for consistency carries these apostles. Poisons, they say, would be quite harmless if the fear of them was removed, but we have yet to find the "mental science" teacher who will undertake to prove this by herself taking liberal doses of aconite and strychnine. The illnesses of children are explained by the hypothesis of hereditary fear. The majority of the teachers of this new faith are women, many of whom, no doubt, are sincere in their belief; but it may be safely stated that the men engaged as the so-called physicians of the new practice are, with few exceptions, unprincipled quacks, who have gone into the business for the money they can make by duping the ignorant. As far as there is any truth underlying the vagaries of mind cures, and their boasts of remarkable cases of healing, it may be admitted that the mind has much influence over the body. This fact has been recognized by intelligent physicians for centuries. And that the peculiar modern type of nervous diseases, which are so largely caused by excessive stimulus of the nerves and the imagination, should be amenable to cure through the imagination, is not strange. It will be noted that this mental cure has effected its miracles mainly among women, where it has the emotional temperament to work on, and almost wholly in the ranks of the wealthy and well-to-do, where there is little or no impoverishment of the system by insufficient food and excessive toil to hinder its effects. We have not heard, nor are we likely to hear, of an epidemic disease checked by the mind cure, or of the healing of acute affections or organic troubles through its agency. do we hear of its seeking to carry its message of healing into the houses of the suffering poor in large cities, where hunger, exposure and foul airs open wide the door to fevers and all deadly diseases, nor yet into hospitals for contagious or incurable affections. In the presence of such realities it would prove, as its votaries probably understand, a too-painful mockery. Intelligently analyzed, therefore, this new revelation amounts to nothing more than a quite striking proof of the remarkable influence of the mind over the nervous system. Beyond this, the craze, in attempting to disprove the existence of disease, and to show that poisons do not kill, is simply running against the plain and inevitable facts of life, and can safely be left to perish through its own rashness.

HYPNOTISM.

A Compend of the General Claims Made By Professional Hypnotists.

Animal magnetism is the nerve-force of all human and animal bodies, and is common to every person in a greater or It may be transmitted from one person to another. The transmitting force is the concentrated effort of will-power, which sends the magnetic current through the nerves of the operator to the different parts of the body of his subject. It may be transmitted by and through the eyes, as well as the finger tips, and the application of the whole open hands, to different regions of the body of the subject, as well as to the mind. The effect of this force upon the subject will depend very much upon the health, mental capacity and general character of the operator. Its action in general should be soothing and quieting upon the nervous system; stimulating to the circulation of the blood, the brain and other vital organs of the body of the subject. It is the use and application of this power or force that constitutes hypnotism.

Magnetism is a quality that inheres in every human being, and it may be cultivated like any other physical or mental force of which men and women are constituted. From the intelligent operator using it to overcome disease, a patient experiences a soothing influence that causes a relaxation of the muscles, followed by a pleasant, drowsy feeling, which soon terminates in refreshing sleep. On waking, the patient feels rested; all his troubles have vanished from conscious-

ness and he is as if he had a new lease of life.

In the true hypnotic condition, when a patient voluntarily submits to the operator, any attempt to make suggestions against the interests of the patient can invariably be frustrated by the patient. Self-preservation is the first law of nature, and some of the best known operators who have recorded their experiments assert that suggestions not in accord with the best interest of the patient could not be carried out. one was ever induced to commit any crime under hypnosis, that could not have been induced to do the same thing much

easier without hypnosis.

The hypnotic state is a condition of mind that extends from a comparatively wakeful state, with slight drowsiness to complete somnambulism; no two subjects, as a rule, ever present-

ing the same characteristics.

The operator, to be successful, must have control of his own mind, be in perfect health and have the ability to keep his mind concentrated upon the object he desires to accomplish with his subject.

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HYPNOTISM.

EXPERIMENT.

For your first experiment select a person as nearly opposite in sex, temperament and complexion to yourself as possible. Seat your subject in a chair, with feet resting squarely on the floor. Take one hand firmly in one of your own and press the ball of the thumb on the median nerve of your subject, which may be found near the junction of the wrist and the root of the thumb, about where the line which circles the base of the thumb, called the life line, joins the wrist. Press upon this nerve firmly. Place your other hand upon the forehead of your subject and have him turn his eyes up to yours. Gaze into his eyes steadily. Watch closely, and as soon as you see that the pupils of his eyes begin to enlarge, speak to him in a firm but monotonous tone of voice, about as follows: "You begin to feel a gentle, warm sensation through your body and brain, your eyes are getting heavy, the pupils are dilating; your muscles are feeling weary and tired; your eyelids are drooping, and they are winking. You are feeling comfortable and very quiet. Your eyelids are closing." If you will notice what follows as you make these suggestions, and you give them in the right mood with a mind concentrated in purpose, the changes showing these conditions will be about as the suggestions imply. You may have to repeat them several times, but if you keep his eyes upon yours and hold your own steadfast, his will finally close. Now draw your hand slowly down over his eyes several times, while keeping up the suggestions in the same monotone voice. When you realize that he is negative to you, tell him, "You cannot open your eyes." If he does open them, close them again and repeat the suggestions, at the same time keeping your finger tips pressing very lightly on his eyelids. If, after trying about thirty minutes, he opens his eyes, close them and draw your hand over the eyes and forehead as before. Keep him in this partially negative condition about ten minutes without any suggestions, and then reverse your passes, directing them from the root of the nose backward to the crown of his head several times, and then tell him that will do for the first sitting. Repeat the experiment as often as convenient, always allowing about thirty minutes to elapse between sittings. Once you have succeeded in making him yield to your suggestion that he cannot open his eyes, take one of his arms and extend it at right angles with his body; stroke it gently from the shoulder outward with your other hand; after a few strokes, suggest that it is rigid, and that he cannot

lower it. Continue to stroke his hand, suggesting that sensation has gone from it. Take a pin or knife point and prick the skin firmly, but not enough to draw blood, for that is not necessary. If he does not draw away his hand you may be sure he is in a state of hypnosis, when the same experiments may be repeated, or similar ones tried.

If you are not successful with your first subject, try again, for if you are in the right attitude of mind and condition of body you will surely get results satisfactory with a subject having negative qualities of temperament that can be ad-

justed to the positive qualities of your temperament.

Many of the strange feats that have often been produced by professional hypnotizers, and published to catch credulous and ignorant people, are nothing more than the result of suggestion, and their nature is governed by the natural mind of the subject. As an operator you should remember that a subject cannot be influenced to do anything against his natural inclination. If you should get a naturally modest subject to come on the platform you could not get him to disrobe in the presence of the audience. On the other hand, if you had a subject that was naturally diffident about speaking before an audience, your suggestions would take away all his fear, and he would probably speak as readily as an accomplished orator if you once got him started by the confidence with which you would inspire him. In the first case your suggestion to disrobe would do an injury to your subject, and he would not carry it out; in the second case, the spirit of ambition, latent in your subject, would sense the benefit of the suggestion, and he would no doubt readily accept and carry it out.

When in the hypnotic condition a subject will usually accept suggestions relative to the removal of disease, and the cessation of pain, and may be so impressed as to carry out instructions then given after being awakened from the hypnotic state.

While the experiments may be greatly varied, the one here

described covers the science in its general aspects.

HIGHEST BRIDGE IN THE WORLD.

What is claimed to be the highest structure of the kind in the world is the bridge over the Zambesi, at the Victoria Falls, in northern Rhodesia, Africa. It traverses the river in one span of 600 feet, is 30 feet wide and is 420 feet above the water. It was built in 1904 by an English bridge company for the Rhodesian railways trust.

OSTEOPATHY—A MECHANICAL PROCESS OF TREATING DISEASES.

Strictly construing the claims of osteopathic doctors, it is an Anti-Medicine system of practice for the cure of every

disease to which the human body is liable.

Dr. Andrew T. Still, who claims to have made the discoveries that led to the establishment of the school of Osteopathy, asserts that all diseases and lesions are the result of the luxation, dislocation, or breakage of some bone or bones; this, however, is not now maintained to any great extent by his followers. Osteopathists, though, do generally claim that all diseases arise from some mal-adjustment of the bones of the human body, and that treatment, therefore, must be to secure the normal adjustment of the bones and ligaments that form the skeleton. They claim that a dislocation is not always necessarily the result of external violence; it may be caused by the ulceration of a process of bones, the elongation of ligaments, or excessive muscular action.

The constriction of an important artery or vein, which may be caused by a very slightly displaced bone, an indurated muscle, or other organ, may produce an excess of blood in one part of the body, thereby causing a deficiency in some other part. A dislocated member will generally show alteration in the form of the joint and axis of the limb; loss of power and proper motion; increased length or shortening of the limb; prominence at one point and depression at another; greatly impaired circulation, and pain due to the obstruction

of nerve force in the parts involved.

The osteopathist claims that pain and disease arise mainly from some mal-adjustment in some part of the body, and that a return to good health involves treatment for the normal adjustment of the skeleton; he asserts, though any luxation may be only partial, it may cause pressure at some point upon a blood vessel, or a nerve, of which the patient may be unconscious, and thus be a barrier to the restoration

of good health.

Osteopathy asserts that trying to heal the body of an ailment, caused by a dislocated member, be it a bone, ligament, or nerve, by which abnormal pressure is maintained upon a blood vessel or a nerve, would be like trying to operate a machine with an important cog out of gear. To cure it involves the reduction of a dislocation; the breaking up of adhesions, and the arousing of the enervated organ or organs, partially or wholly failing in the performance of function. By this process the circulation of the fluids of the body will

be equalized, nerve force be freed from obstruction; harmony being a necessity in the creation of beauty and strength, not only of all great buildings, but of all mechanism, when the human body is thus re-adjusted, by mal-formation being removed, it is assumed that good health will immediately follow.

The great secret by which osteopathy claims to cure every ailment that the human body is liable to, is, that steady pressure over a given nerve center will produce a certain result; and that stimulation by manipulation, or massage, will produce an opposite effect; that thus by working upon these nerve and blood-vessel centers, the organic system can be so controlled that pain and disease can be quickly removed and cured.

It is maintained that secretion is dependent upon the proper innervation and free circulation of the blood; that the cause of lesions of secreting organs may be local or general, and the secreting process will be affected accordingly. A sharp pain is evidence of unduly excited circulation; a dull pain with sensations of weight and fullness, is evidence of obstructed circulation. If neither of these symptoms appears the condition indicating departure from normal health is likely to be general; in such a case the remedy of osteopathy is to increase the blood pressure by stimulating the action of the heart, and regulating the calibre of the arteries, through the vaso-motor centers. If the condition is local the blood pressure may be increased by relaxation of the arteries, which can be produced by manipulation; or by constriction of the arteries other than those immediately exhibiting abnormal excitation.

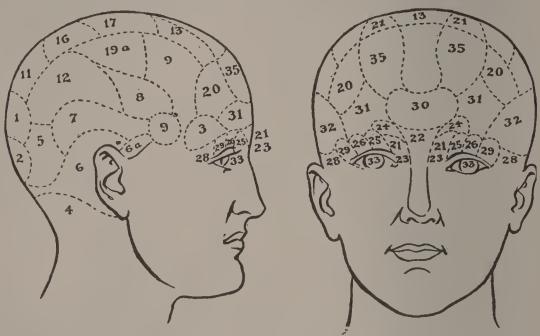
To be a scientific osteopath, however, it is necessary to have a thorough knowledge of anatomy and physiology. He must know the location of nerve centers and how to bring pressure and retraction upon a nerve to deaden its conductive quality, or to excite it to action. If he has a thorough knowledge of the various nerve centers, and of the different organs and tissues, and how to excite them to activity, and to arouse them with inactive, he may increase the nerve current, and the blood current to almost any part of the body, or decrease it if necessary to stop pain.

It claims to have demonstrated the practicability of its theories in the treatment of ataxia, paralysis, anæsthetic and hyperæsthetic conditions, and in the peristaltic action of the bowels, the regulation of the action of the heart, and in controlling the calibre of the blood vessels, thereby affording effectual relief from pain, in disease and parturition.

PHRENOLOGY.

Discovered and Formulated by Dr. Gall, and as Improved by Dr. Spurzheim.

The first claim put forth by the teachers and professional demonstrators of phrenology makes it a system of mental philosophy, beside at the same time presenting a much more popular aspect as a method whereby the disposition, character and natural aptitude of the individual may be ascertained.



These two features of the subject are quite distinct from each other, for, while it can serve as a reliable guide for reading character only on the assumption of its truth as a philosophic system, yet the possibility of its practical application does not necessarily follow from the establishment of the truth of its theoretical side.

Two of the earliest founders of the science of anatomy, Erasistratus and Herophilis, who lived in the age of Ptolemy Soter, taught that the brain was the seat of sensation and intellect, and that there was therein a certain degree of localization of function. Galen later taught that the brain is the seat of the soul and intellect. From these facts of history the system of phrenology, though formulated by Dr. Gall, Dr. Spurzheim, the Fowler Brothers and others, rests upon deductions derived from the teachings of the demonstrators of anatomy and students of philosophy.

The formulated system of phrenology is very generally believed to be a modern expansion of an old empirical philosophy, the parentage can easily be traced, although, according to Dr. Gall's account, it arose with him as the result of independent observations. The popularity of phrenology has waned in the public mind; the cultivation of the system is confined to a few enthusiasts, such as pose as teachers of it as a vocation. This class claim that phrenology is a practical and important science and that it rests upon the following principles:

First—That the human brain is the organ of the mind.

Second—That the mental powers of man can be analyzed into a definite number of measurably independent faculties.

Third—That these faculties are inate, and each has its seat

in a definite region of the brain.

Fourth—That the size of each of these regions is the measure of the power of manifesting the faculty associated with it.

The Faculties and Their Localities, as originally constructed by Dr. Gall, were for the most part identified on slender grounds; his procedure was as follows: Having selected the place of a faculty, he examined the heads of his friends and casts of persons with that peculiarity in common, and in them sought for the distinctive feature of their characteristic trait. Some of his earlier studies were among low associates in jails and lunatic asylums, and some of the qualities located by him were such as tend to become perverted to crime. These he named after their excessive manifestations, and thus mapped out organs of theft, murder, etc This, however, caused the system to be discredited; later his pupil, Dr. Spurzheim, who claimed as his the moral and religious features belonging to it greatly modified these characteristics of Dr. Gall's work. The chart of the human head as invented by Dr. Gall represented 26 organs; the chart as improved by Dr. Spurzheim makes out 35 organs. This is the chart now generally used and which the above cuts represent. The number specifies the location of each organ, which is followed by its phrenological name, and classified as follows:

PROPENSITIES.

(1) Amativeness. (2) Philoprogenitiveness. (3) Concentrativeness. (4) Adhesiveness. (5) Combativeness. (6) Destructiveness. (6a) Alimentiveness. (7) Secretiveness. (8) Acquisitiveness. (9) Constructiveness.

LOWER SENTIMENTS.

(10) Self-esteem. (11) Love of Approbation. (12) Cautiousness. SUPERIOR SENTIMENTS.

(13) Benevolence. (14) Veneration. (15) Conscientiousness. (16) Firmness. (17) Hope. (18) Wonder. (19) Ideality. (20) Wit. (21) Imitation.

PHRENOLOGY.

PERCEPTIVE FACULTIES.

(22) Individuality. (23) Form. (24) Size. (25) Weight. (26) Color. (27) Locality. (28) Number. (29) Order. (30) Eventuality. (31) Time. (32) Tune. (33) Language.

REFLECTIVE FACULTIES.

(34) Comparison. (35) Causality.

The judgment of the phrenologist is determined by the size of the brain in general, and by the size of the organs that have been formulated, and these are estimated by certain arbitrary rules that render the boundaries of the regions in-

The controversy over phrenology has served undoubtedly the very useful purpose of stimulating research into the anat-

only of the brain.

It is generally conceded that any psychological theory which correlates brain-action and mental phenomena requires a correspondence between the size of the brain and mental power, and generally observation shows that the brains of those whose capacities are above the average are larger than those of the general run of their fellow men.

A study of the cuts and comparison of the sizes of different heads and their shape will prove very entertaining with most any group of persons intellectually inclined, and it will be found that persons who are naturally good readers by instinct of human nature, with its help, can make remarkable readings

in the delineation of character.

DISTRIBUTION OF JEWS IN THE WORLD.

[From the American Jewish Year Book for 1904.] United States1,127,268 Netherlands 103,998 British empire 276,614 Abyssinia 120,000 Curacao 103 Surinam 120,000 Abyssinia 1.121 35,000 Peru 498 Roumania 276,493 Bosnia 8,213 Russia5,189,4013,000 Brazil Servia 5,102 China 300 Spain 402 Costa Rica 43 Sweden and Norway... 3,402 4.000 Cuba Switzerland 3,476 Turkey Denmark 350,000 France 80,000 Bulgaria 33,717 Algeria 57,132 25.200 Egypt Tunis 45,000 Crete 1,150 Turkestan and Afghanistan 586,948 5,792 14.000 43,552 Italy Venezuela 411 1,201 Luxemburg Mexico 1,000 Total10,671,832 Morocco 150,000

WHAT DIFFERENT EYES INDICATE.

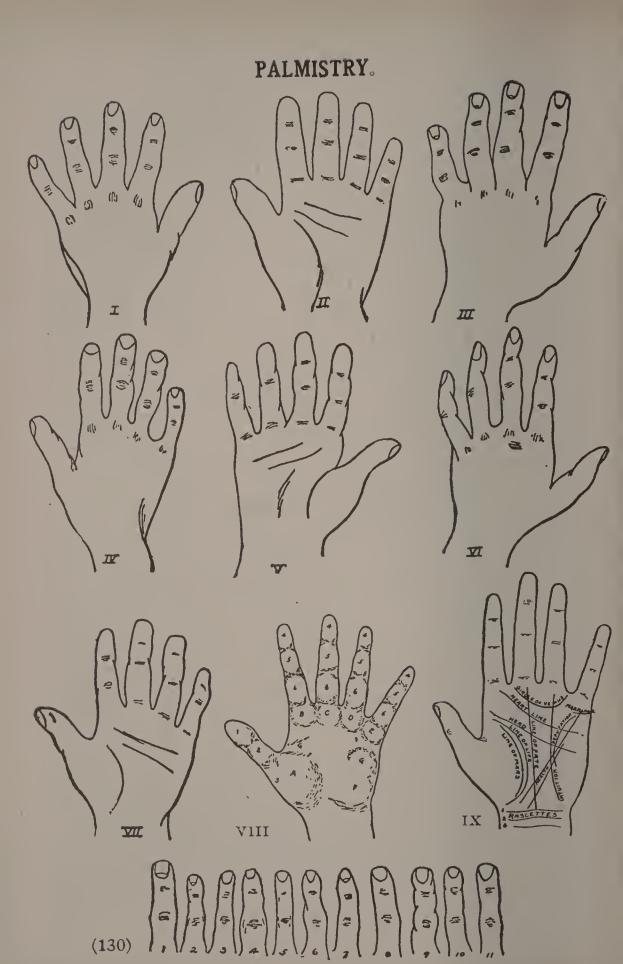
The long, almond-shaped eye with thick eyelids covering nearly half of the pupil, when taken in connection with the full brow, is indicative of genius, and is often found in artists, literary and scientific men. It is the eye of talent, or impressibility. The large, open, transparent eye, of whatever color, is indicative of elegance, of taste, of refinement, of wit, of intelligence. Weakly marked eyebrows indicate a feeble constitution and a tendency to melancholia. Deep sunken eyes are selfish, while eyes in which the whole iris shows indicate erraticism, if not lunacy. Round eyes are indicative of innocence; strongly protuberant eyes of weakness of both mind and body. Eyes small and close together typify cunning, while those far apart and open indicate frankness. The normal distance between the eyes is the width of one eye; a distance greater or less than this intensifies the character supposed to be symbolized. Sharp angles, turning down at the corners of the eyes, are seen in persons of acute judgment and penetration. Well-opened steady eyes belong to the sincere; wide staring eyes to the impertinent. Gray eyes are supposed to be the strongest, blue the weakest, while large eyes are most subject to the defect known as near-sightedness.

THE IROQUOIS THEATER FIRE.

The Iroquois Theater, Chicago, was the scene of a terrible calamity on the afternoon of Wednesday, Dec. 30, 1903. A matinee performance of the extravaganza, "Mr. Bluebeard," was in progress and the theater was crowded, chiefly with women and children. In the latter part of the second act some of the scenery caught fire from an unprotected light. The flames spread with great rapidity and were forced out into the audience room by a strong draft from the back part of the building. An attempt was made to lower the asbestos curtain, but it failed to descend. A frightful panic ensued and in their efforts to escape hundreds were trampled upon and crushed to death, while others were suffocated by the smoke and heat. Several of the exits were barred by locked doors or the loss of life would have been less. Altogether 575 persons lost their lives, most of them in the balcony and gallery. Many received injuries that crippled them for life.

The calamity at the Iroquois caused all the theaters in Chicago to be closed temporarily and many of them were not permitted to reopen until they had complied with the provisions of a new and stringent theater law passed by the com-

mon council.



(130)

The following points, upon which the Science of Palmistry is based, explain its mysteries, and will be found very interesting, amusing and instructive:

FORM OF THE HAND.

Hands are classed into seven types, each of which is illustrated by the cuts on the preceding page, and described as follows:

Plate I—The Elementary or Bilious Hand, indicating brutal instinct instead of reason as the governing power of the char-

acter.

Plate 2—The Square or Jupiter Hand, indicating a practical, stubborn, methodical and conventional character; one apt to

be suspicious of strangers and radical in views.

Plate 3—The Spatulate or Nervous Hand, so named because of its imagined resemblance to a spatula. It is broad at the base of the fingers, and indicates great energy and push to discover; also, courage and fearlessness.

Plate 4—The Philosophic or Venus Hand, has a long, thin, muscular palm, with long, knotty fingers; indicates a student

of nature and searcher after truth.

Plate 5—The Mercury or Artistic Hand, indicates quick temper, impulsiveness; a character that is light-hearted, gay and charitable, to-day; and to-morrow, sad, tearful and uncharitable.

Plate 6-The Lunar or Idealistic Hand, indicates an ex-

tremely sensitive nature.

Plate 7—The Harmonic or Solar Hand, indicates a character of great versatility, brilliant in conversation, and an adept in diplomacy.

THE FINGERS.

For fortune telling the fingers from first to fourth are designated as Jupiter, Saturn, Apollo and Mercury.

Note the cut on preceding page, representing the different

types of fingers, numbered from one to eleven.

I—Large fingers, indicate a person of vulgar tastes and a cruel, selfish disposition.

2—Small, thin fingers indicate a keen, quick acting mind and a person not very particular about personal appearance.

3—Long, lean fingers indicate an inquiring disposition; love of details in narrative; short fingers imply simple tastes and selfishness.

4—Fat fingers, largely developed at base, indicate sensual-

ness; if small at base, the reverse.

5.—Smooth fingers indicate artistic ability.

6—Knotty fingers indicate truthfulness and good order in business affairs.

7—Pointed fingers indicate a very magnetic and enthusiastic personality.

8—Square fingers indicate a strong mind, regularity and

love of good order.

9—Spatulate fingers indicate a character of positiveness in opinions, and lacking in gentleness.

Fingers of Mixed Shape indicate a harmonious disposition, with ability to easily adapt himself to all conditions.

11—Obtuse fingers indicate coarse and cruel sensibilities.

THE PHALANGES OF THE FINGERS.

See plate VIII—1, 2, 3—The phalanges of the Thumb; 4, 5, 6—Repeated on each finger, indicate the phalanges of the four fingers.

THE MOUNTS OF THE HANDS.

See plate IX—A, Mount Venus; B, Mount Jupiter; C, Mount Saturn; D, Mount Apollo; E, Mount Mercury; F, Mount Luna; G, Mount Mars.

THE SHAPE AND LENGTH OF THE PHALANGES

represent certain qualities and features of character, as pre-

sented in the following:

Jupiter, the first finger; if the first phalange is longer than the second, it indicates ability to control others, direct and maintain order; if the second phalange is long and well developed, it indicates leadership; if short and thin, intellectual weakness; if the third phalange is long, it indicates love of power in material things.

Saturn, second finger; if the first phalange is longer than the second, it indicates ability for mastering scientific subjects; if the second phalange is long, it indicates great interest in subjects requiring deep study; if the third phalange is

long, it indicates a love of metaphysics and money.

Mercury, fourth finger; if the first phalange is longer than the second, it indicates love of the arts; if the second phalange is long, it indicates success and love of riches; if the third phalange is thick, it indicates an inherited talent for the arts.

Mercury, fourth finger; if the first phalange is longer than the second, it indicates a taste for and love of research; if the second phalange is long and well developed, it indicates industrious habits; if the third phalange is long and fat, it indicates a desire for the comforts of life.

THE MOUNTAINS

are points or elevations on the palm.

Mount Venus, if prominent, indicates a person of strong passions, great energy in business, and admiration of physical beauty in the opposite sex; it also indicates love of children, home and wife, or husband. When not well developed there is a lack of love for home, children, wife or husband; and in a man, it indicates egotism and laziness,—in a woman, hysteria.

Mount Jupiter, if prominent, indicates a person who is generous, loves power, and is brilliant in conversation; if a woman, she desires to shine and be a social leader. When not well developed, it indicates lack of self-esteem, slovenliness

and indifference to personal appearance.

Mount Saturn, if prominent, indicates a serious-minded person, religiously inclined, slow to reach a conclusion, very prudent, free in the expression of opinions, but inclined to be pessimistic.

Mount Apollo, if prominent, indicates ability as an artist, generosity, courageousness, and a poetical nature, apt to be a spendthrift. When not well developed, it indicates cautious-

ness and prudence.

Mount Mercury, if prominent, indicates keen perceptions, cleverness in conversation, a talent for the sciences, industriousness, and deceitfulness. If not well developed, it indicates a phlegmatic, stupid disposition.

Mount Luna, if prominent, indicates a dreamy, changeable, capricious, enthusiastic, and inventive nature. When not well developed, it indicates constancy, love of home, and ability to

imitate others.

Mount Mars, if prominent, indicates self-respect, coolness, and control of self under trying circumstances, courageousness, venturesomeness and confidence in one's ability for anything undertaken. When not well developed, it indicates the opposite of these characteristics.

LINES ON THE HAND,

if not well defined, indicate poor health.

Deep red lines indicate good, robust health. Yellow lines indicate excessive biliousness.

Dark colored lines indicate a melancholy and reserved dis-

position.

The Life Line extends from the outer base of Mount Jupiter, entirely around the base of Mount Venus. If chained

under Jupiter, it indicates bad health in early life. Hair lines extending from it implies weakness, and if cut by small lines from Mount Venus, misplaced affections and domestic broils. If arising from Mount Jupiter, an ambition to be wealthy and learned. If it is joined by the Line of the Head at its beginning, prudence and wisdom are indicated. If it joins Heart and Head lines at its commencement, a great catastrophe will be experienced by the person so marked. A square on it denotes success. All lines that follow it give it strength. Lines that cut the Life Line extending through the Heart Line denote interference in a love affair. If it is crossed by small lines, illness is indicated. Short and badly drawn lines, unequal in size, implies bad blood and a tendency to fevers.

THE HEART LINE,

if it extends across the hand at the base of the finger mounts and is deep and well defined, indicates purity and devotion; if well defined from Mount Jupiter only, a jealous and tyrannical disposition is indicated; if it begins at Mount Saturn and is without branches, it is a fatal sign; if short and well defined in the Harmonic type of hand it indicates intense affection when it is reciprocated; if short on the Mercury type of hand, it implies deep interest in intellectual pursuits; if short and deep in the Elementary type of hand, it implies the disposition to satisfy desire by brutal force, instead of by love.

THE HEAD LINE

is parallel to Heart Line and forms the second branch of letter M, generally very plain in most hands; if long and deep it indicates ability to care for one's self; if hair lines are attached to it, mental worry: if it divides toward Mount Mercury love affairs will be first, and business secondary; if well defined its whole length, it implies a well-balanced brain; a line from it extending into a star on Mount Jupiter great versatility, pride and love for knowledge are indicated; if it extend to Mount Luna interest in occult studies is implied; separated from the Life Line, indicates aggressiveness; if it is broken, death is indicated from an injury in the head.

THE RASCETTES.

are lines across the wrist where the palm joins it.

It is claimed they indicate length of life; if straight it is a good sign. One Rascette indicates thirty years of life; two lines, sixty; three lines, ninety.

THE FATE LINE

commences at Rascettes and if it extends straight to Mount Saturn, uninterrupted, and alike in both hands, good luck and success are realized without personal exertion. If not in one hand and interrupted in the other, success will be experienced only by great effort. If well defined at the wrist the early life is bright and promising; if broken in the center, misery for middle life is indicated. If this line touches Mounts Luna and Venus, it indicates a good disposition and wealth; if inclined toward any mount, it implies success in that line for which the mount stands. If it is made up of disconnected links, it indicates serious physical and moral struggles. Should it end at Heart Line, the life has been ruined by unrequited love. If it runs through a square, the life has been in danger and saved. Should it merge into the Heart Line and continue to Mount Jupiter, it denotes distinction and power secured through love.

THE GIRDLE OF VENUS

is a curved line extending from Mount Jupiter to Mercury, encircling Saturn and Apollo. It appears on few hands, but it indicates superior intellect, a sensitive and capricious nature; if it extends to base of Jupiter it denotes divorce; ending in Mercury, implies great energy; should it be cut by parallel lines in a man, it indicates a hard drinker and gambler.

LINES OF REPUTATION,

commencing in the middle of the hand, at the Head Line. Mount Luna or Mount Mars, indicate financial success from intellectual pursuits after years of struggling with adversity. If from Heart Line, real love of occupation and success; if from Head Line, success from selfishness. An island on this line denotes loss of character, a star on it near Apollo implies that success will be permanent, and a square, brilliant success. The absence of this line implies a struggle for recognition of one's abilities.

LINE OF INTUITION,

beginning at base of Mount Mercury extends around Mars and Luna; it is frequently found in the Venus, Mercury and Lunar types of hands; when deeply dented with a triangle on Mount Saturn it denotes clairvoyant power; if it forms a triangle with Fate Line, or Life Line, a voyage will be taken.

HEALTH LINE

commences at center of the Rascettes, takes an oblique course from Fate Line, ending toward Mount Mercury. If straight and well defined, there is little liability to constitutional diseases; when it does not extend to Head Line, steady mental labor cannot be performed; when it is broad and deep on Mount Mercury, diminishing as it enters the Life Line, death from heart disease is indicated; small lines cutting it denotes sickness from biliousness. When joined to Heart Line, health and business are neglected for Love; if made up of short, fine lines, there is suffering from Stomach Catarrh; if it is checked by islands there is a constitutional tendency to lung disease.

MARRIAGE LINES

extend straight across Mount Mercury; if short, affairs of the heart without marriage are denoted. When near Heart Line early marriage is indicated; if it turns directly to Heart Line, marriage will occur between the ages of 16 and 21; if close to the top of the mount, marriage will not take place before the 35th year; if it curves upward it indicates a single life; when pronged and running toward the center or to Mount Mars, divorce will occur. If the end of this line droops the subject will outlive wife or husband; if broken, divorce is implied; if it ends in a cross, the wife or husband will die from an accident. A branch from this line upward implies a high position attained by marriage. A black spot on this line means widow-hood.

CHILDREN'S LINES

are small and upright, extending from the end of Marriage Lines. If broad and well defined, males, if fine and narrow, females, are indicated. A line of this order that is deep and well defined denotes prominence for that child.

SMALL LINES

have a signification depending upon their position and number. A single line on Jupiter signifies success; on Saturn, happiness; on Apollo, fame and talent.

Ascending small lines are favorable, while descending lines

are unfavorable signs.

Several small lines on Mars indicate warfare constantly. Cross lines, failure.

ORIGIN AND MEANING OF NAMES OF MEN.

Aaron, Hebrew, a mountain, or lofty. Abel, Hebrew, vanity. Abraham, Hebrew, the father

of many. Absalom, *Hebrew*, the father

of peace.

Adam, *Hebrew*, red earth. Adolphus, *Saxon*, happiness and help.

Adrian, Latin, one who helps.
Alan, Celtic, harmony; or
Slavonic, a hound.

Albert, Saxon, all bright. Alexander, Greek, a helper of men.

Alfred, Saxon, all peace. Alonzo, form of Alphonso, q. v. Alphonso, German, ready or

willing. Ambrose, Greek, immortal. Amos, Hebrew, a burden. Andrew, *Greek*, courageous. Anthony, *Latin*, flourishing. Archibald, *German*, a bold observer.

Arnold, German, a maintainer of honor.

British, strong Arthur,

Latin, venerable, Augustus, grand.

B

Baldwin, German, a bold wlnner.

Barnaby, Hebrew, a prophet's

Hebrew, the Bartholomew, son of him who made the waters to rise.
Beaumont, French, a pretty

mount. Benjamin, Hebrew, the son of a right hand.

Bennett, Latin, blessed.

Bertram, German, fair, illustrious.

Bertrand. German, bright, raven.

Boniface, *Latin*, a well-doer. Brian, *French*, having a thundering voice.

Cadwallader, British, valiant in war. Cæsar, Latin, adorned with

hair.

Caleb, *Hebrew*, a dog. Cecil, *Latin*, dim-sighted.

Charles, German, noble-splr-

Christopher, Greek, bearing Christ.

Clement, Latin, mild-tempered.

Conrad, German, able council. Cornelius, Latin, meaning uncertain.

Crispin, Latin, having curled locks.

Cuthbert, Saxon, known famously.

Daniel, Hebrew, God is judge. David, Hebrew, well-beloved. Denis, Greek, belonging to the god of wine. Douglas, Gaelic, dark gray. Duncan, Saxon, brown chief. Dunstan, Saxon, most high

Edgar, Saxon, happy honor. Edmund, Saxon, happy peace. Edward, Saxon, happy keeper. Saxon, happy con-Edwin, queror.

Egbert, Saxon, ever bright. Elijah, Hebrew, God the Lord. Elisha, Hebrew, the salvation of God.

Emmanuel, Hebrew, God with

Enoch, Hebrew, dedicated. Ephraim, Hebrew, fruitful. lovely, Greek, Erasmus, worthy to be loved.

Ernest, Greek, earnest, seri-

Esau, Hebrew, hairy.

Eugene, Greek, nobly scended.

Eustace, *Greek*, standing firm. Evan, or Ivan, *British*, the same as John.

German, well Everard. ported.

ORIGIN AND MEANING OF NAMES OF MEN.

Ezekiel, Hebrew, the strength of God.

Felix, Latin, happy. Ferdinand, German, pure peace. Fergus, Saxon, manly strength. Francis, German, free. Frederic, German, rich peace.

Gabriel, Hebrew, the strength of God. Geoffrey, German, joyful. George, Greek, a husbandman. Gerard, Saxon, all towardli-Gideon, Hebrew, a breaker. Gilbert, Saxon, bright as gold. Giles, Greek, a little goat. Godard, German, a godly disposition. Godfrey, German, God's peace. Godwin, German, victorious in Griffith, British, having great faith. Guy, French, a leader.

Н

Hannibal, Punic, a gracious lord. Harold, Saxon, a champion. Hector, Greek, a stout defender. Henry, German, a rich lord. Herbert, German, a bright lord. Hercules, Greek, the glory of Hera, or Juno. Horace, Latin, meaning uncertain. Howel, British, sound or whole. Hubert, German, a bright col-Hugh, Dutch, high, lofty. Humphrey, German, domestic peace.

Ignatius, Latin, fiery. Ingram, German, of angelic purity. Isaac, Hebrew, laughter.

Jabez, Hebrew, one who causes pain. Jacob, Hebrew, a supplanter.

James, or Jaques, beguiling. Job, Hebrew, sorrowing. Joel, Hebrew, acquiescing.
John, Hebrew, the grace of
the Lord.
Jonah, Hebrew, a dove. Jonathan, Hebrew, the gift of the Lord. Joseph, Hebrew, addition. Joshua, Hebrew, a Saviour. Josiah, or Josias. Hebrew, the fire of the Lord. Julius, Latin, soft-haired.

Lambert, Saxon, a fair lamb. Lancelot, Spanish, a little lance. Laurance, Latin, crowned with laurels. Lazarus, Hebrew, destitute of help. Leonard, German, like a lion. Leopold, German, defending the people. Lewis or Louis. French, the defender of the people. Lionel, Latin, a little lion. Llewellin, *British*, like a lion. Llewellyn. *Celtic*, lightning. Lucius, *Latin*, shining. Luke, Greek, a wood or grove.

Manifred, German, great peace.

Mark, Latin, a hammer.

Martin, Latin, martial.

Matthew, Hebrew, a gift present. Maurice, Latin, sprung of Moor. Meredith, British, the roaring of the sea. Michael, Hebrew, who is like God. Morgan, British, a mariner. Moses, Hebrew, drawn out.

Nathaniel, Hebrew, the gift of God. Neal, French, somewhat black. Nicholas. Greek, victorious victorious over the people.
Noel, French, belonging ones nativity. Norman, French, one born in Normandy.

ORIGIN AND MEANING OF NAMES OF MEN.

0

Oliver, Latin, an olive.
Orlando, Italian, counsel for the land.
Orson, Latin, a bear.
Osmund, Saxon, house peace.
Oswald, Saxon, ruler of a house.
Owen, British, well descended.

P

Patrick, Latin, a nobleman.
Paul, Latin, small, little.
Percival, French, a place in
France.
Percy, English, adaptation of
"pierce eye."
Peter, Greek, a rock or stone.
Philip, Greek, a lover of horses
Phineas, Hebrew, of bold
countenance.

R

Ralph, contracted from Randolph, or Randal, or Ranulph, Saxon, pure help.
Raymond, German, quiet peace Reuben, Hebrew, the son of vision.
Reynold, German, a lover of purity.
Richard, Saxon, powerful.
Robert, German, famous in counsel.
Roderick, German, rich in fame.
Roger, German, strong counsel.
Roland, German, counsel for the land.
Rollo, form of Rolland, q. v.
Rufus, Latin, reddish.

S

Samson, Hebrew, a little son. Samuel. Hebrew, heard by God Saul, Hebrew, desired. Seth. Hebrew, appointed. Silas, Latin, sylvan or living in the woods. Simeon, Hebrew, hearing. Simon, Hebrew, obedient. Solomon, Hebrew, peaceable. Stephen, Greek, a crown or garland. Swithin, Saxon, very high.

T

Theobald, Saxon, bold over the people.
Theodore, Greek, the gift of God.
Thomas, Hebrew, a twin.
Timothy, Greek, a fearer of God.
Titus, Greek, meaning uncertain.
Toby. Hebrew, goodness of the Lord.

V

Valentine, Latin, powerful. Victor, Latin. conqueror. Vincent, Latin, conquering. Vivian, Latin, living.

W

Walter, German, a conqueror.
Wilfred, Saxon, bold and
peaceful.
William, German, defendin;
many.

Z

Zaccheus, Syriac, innocent.

CHRISTIAN NAMES OF WOMEN.

A

Adela, German, same as Adeline; q. v.
Adeldiae, German, same as Adeline q. v.
Adeline, German, a princess.
Agatha, Greek, good.
Agnes, German, chaste.
Althea, Greek, hunting.
Alice, Alicia, German, noble.
Alma, Latin, benignant.
Amabel, Latin, lovable.
Amy. Amelia, French, a beloved.

Angelina, Greek, lovely, angelic.

Anna, or Anne, Hebrew, gracious.

Arabella. Latin, a fair altar. Aurora. Latin, morning brightness.

B

Barbara, Latin, foreign or strange. Beatrice. Latin, making happy Bella. Italian, beautiful. Benedicta, Latin, blessed.

Bernice, Greek, bringing victory. Bertha, Greek, bright or fa-Bessie, short form of Elizabeth, q. v. Blanche, French, fair.

Bona, Latin, good.

Bridget, Irish, shining bright.

Camilla, Latin, attendant at a sacrifice. Carlotta. Italian. same Charlotte q. v. Caroline, Latin, noble-spirited. Cassandra, Greek, a reformer of men. Catherine. Greek, pure or

Charity, Greek, love, bounty. Charlotte, French, all noble. Chloe, Greek, a green herb. Christina, Greek, belonging to Christ.

Clara, Latin, clear or bright. Constance, Latin, constant.

Dagmar, German, joy of the Danes. Deborah, Hebrew, a bee. Diana, Greek, Jupiter's daughter. Dorcas, Greek, a wild roe. Dorothy, Greek, gift of God.

Edith, Saxon, happiness.
Eleanor, Saxon, all-fruitful.
Eliza, Elizabeth, Hebrew, the oath of God.
Emily, corrupted from Amelia.
Emma, German, a nurse.
Esther, Hesther, Hebrew, secret cret. Eudora, Greek, good gift. Eugenia, French, well-born. Eunice, Greek, fair victory. Eva. or Eve, Hebrew, causing life.

Flora, dim. of Frances, q. v. Flora, Latin, flowers. Florence. Latin, blooming, flourishing.

Frances, German, free.

Gertrude. German, all truth. Glace, Latin, favor.

Hannah, *Hebrew*, gracious. Harriet, *German*, head of the house. Helen, or Helena, Greek, alluring. Henrietta, fem, and Dim. of Henry, q. v. Hilda, German, warrior maid-

Honora, *Latin*, honorable. Huldah, *Hebrew*, a weasel.

Irene, peaceful. Isabella, Spanish, fair Eliza.

Jane, or Jeannie, fem. of John, q. v.
Janet, Jeanette, little Jane.
Jemina, Hebrew, a dove.
Joan, Joanna, Hebrew, fem.
of John q. v.
Joyce, French, pleasant.
Judith, Hebrew, praising.
Julia, Juliana, fem. of Julius,
q. v. Jane, or Jeannie, fem. of

Katherine, form of Catherine, Ketura, *Hebrew*, incense.

Laura, Latin, a laurel. Lavinia, Latin, of Latium. Letitia, Latin, joy or glad-Lilian, Lily, Latin, a lily. Lois, Greek, better. Louisa, German, fem. Louis, q. v. Lucretia, Latin, a chaste Roman lady. Lucy, Latin, fem. of Lucius. Lydia. Greek, descended from Lud.

Mabel, Latin, lovely or lovable. Madeline, form of Magdalen, q. v.Margaret, *Greek*, a pearl. Martha. *Hebrew*, bitterness. Mary, Hebrew, bitter. Matilda, German, a lady of Maud, German, form of Ma-

tilda, q. v.

CHRISTIAN NAMES OF WOMEN.

May. Latin, month of May.
Mercy. English, compassion.
Mildred, Saxon, speaking mild
Minnie. dim. of Margaret,
q. v.

Naomi, Hebrew, alluring.

Olive, Olivia. *Latin*, an olive. Ophella, *Greek*, a serpent.

Patlence, Latin, bearing patiently.
Penelope, Greek, a weaver.
Persis, Greek, destroying.
Philippa, Greek, fem, of PhilipPhæbe, Greek, the light of life.
Phyllis, Greek, a green bough.
Polly, variation of Molly.

Polly, variation of Molly, dim. of Mary, q. v.
Priscilla, Latin, somewhat old Prudence, Latin, discretion.

Rachel, Hebrew, a lamb.
Rebecca. Hebrew, fat or plump
Rhoda. Greek, a rose.
Rose or Rosa. Latin, a rose.
Rosalind, Latin, beautiful as
a rose.
Rosamond, Saxon, rose of

peace.

Roxana, *Persian*, dawn of day.
Ruth, *Hebrew*, trembling, or beauty.

Sabina. Latin, sprung from the Sabines.
Salome, Hebrew, perfect.
Sarah, Hebrew, a princess.
Selina, Greek, the moon.
Sibylla, Greek, the counsel of God.
Sophia, Greek, wisdom.
Susan, Susanna, Hebrew, a lily.

Tabitha. Syriac, a roe.
Theodosia, Greek, given by
God.

Ursula, Latin, a she bear.

Victoria, Latin, victory. Vida, Erse, fem. of David.

Walburga, Saxon, graclous.
Winifred, Saxon, winning
peace.

Zenobia. *Greek*, the life of Jupiter.

CARNEGIE INSTITUTION OF WASHINGTON.

The Carnegie Institution of Washington was incorporated Jan. 4, 1902, and endowed by Andrew Carnegie, with \$10,000,000. The purpose of the institution is thus declared by its founder:

"It is proposed to found in the city of Washington an institution which, with the co-operation of institutions now or hereafter established there or elsewhere, shall in the broadest and most liberal manner encourage investigation, research and discovery—show the application of knowledge to the improvement of mankind, provide such buildings, laboratories, books and apparatus as may be needed, and afford instruction of an advanced character to students properly qualified to profit thereby."

Under the original organization the endowment and the conduct of the institution were intrusted to a board of twenty-seven trustees. But under the act of congress approved April 28, 1904, certain ex-officio trustees were dispensed with

and the board now consists of twenty-four persons.

THE CIVIL SERVICE.

The officials and clerks—over 120,000 in all—by whom the people's business in the administration of government is carried on, constitute the Civil Service. About 5,000 of these are appointed by the President, alone or with the consent of the Senate; about 15,000 under what are known as the "Civil Service Rules," but the great body of officeholders are appointed by heads of departments.

Those employed in the civil service have always been theoretically entitled to serve "during good behavior," but practically, until within a few years, their positions have depended upon

their allegiance to the political party in power.

In 1883 Congress passed a law for the improvement of the civil service of the United States. This act provides for the appointment by the President of three commissioners to have general charge of filling the vacancies in the civil service department, and stipulates that the fitness of all applicants for all subordinate positions in the departments at Washington, and in all custom houses and postoffices having as many as 50 officeholders, shall be tested by examinations, and the positions assigned with reference to the capacity, education and character of the applicants, regardless of political preferences.

According to this, no absolute appointment to office can be made until the applicant has proven his or her ability to fill the position satisfactorily by six months' service; no person habitually using intoxicating beverages to excess shall be appointed to, or retained in, any office; no recommendation which may be given by any Senator or mer ber of the House of Representatives, except as to character and residence, shall be considered by the examiners; men and women shall receive the same pay

for the same work.

The general competitive examinations for admission to the service are limited to the following subjects: I. Orthography, penmanship and copying. 2. Arithmetic—fundamental rules, fractions and percentage. 3. Interest, discount, and the elements of bookkeeping and of accounts. 4. Elements of the English language, letter writing, and the proper construction of sentences. 5. Elements of the geography, history and government of the U.S.

A standing of 65 per cent. in the first three branches is necessary to qualify an applicant for appointment. Where special qualifications are necessary for specific work the examinations are adapted to test the knowledge of the applicant in that particular line.

No applicant will be examined who cannot furnish proof that he is of good moral character and in good health.

LAND MEASURE-PUBLIC LANDS.

the U. S., and several examinations are held each year. Applications must be made on the regular "application paper," which can be obtained of the commissioners, or any board of examiners.

Several of the States have adopted the principles laid down in the civil service act and applied them to the State civil service, and it is probably only a question of time when Civil Service Reform will be consummated throughout the U.S., and the public service will thereby be rendered much more efficient.

United States Land Measure and Homestead Law.

A township is 36 sections, each a mile square. A section is 640 acres. A quarter section, half a mile square, is 160 acres. An eighth section, half a mile long, north and south, and a

quarter of a mile wide, is 80 acres. A sixteenth section, a quarter of a mile square, is 40 acres.

The sections are all numbered 1 to 36, commencing at north-east corner, thus:

The sections are all divided in quarters, which are named by the cardinal points, as in section 1. The quarters are divided in the same way, as shown in the smaller dia-

N W	N_E	N.W	N.E
	N_W	N,E	N E
s w	SENW	S W N E	SE NE
NW	N E	N W	N E
SW	S W	S E	S E
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6	5	4	3	2	SW SE
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
1 toward The court half					

forty-acre lot would read: The south half of the west half of the south-west quarter of section I in township 24, north of range 7 west, or as the case might be; and sometimes will fall short and sometimes overrun the number of acres it is supposed to contain.

Titles to the Public Lands -How Acquired.

gram. The descrip-

The public lands of the United States still unsold and open to settlement are divided into two classes, one class being sold by the Government for \$1.25 per acre as the minimum price, the other at \$2.50 per acre, being the alternate sections reserved by the United States in land grants to railroads, etc. Such tracts are sold upon application to the Land Register. Heads of

TITLES TO THE PUBLIC LANDS.

families, or citizens over twenty-one years, who may settle upon any quarter section (or 160 acres) have the right under the pre-emption law of prior claim to purchase, on complying

with the regulations.

Under the homestead laws, any citizen, or intending citizen, has the right to 160 acres of the \$1.25 land, or 80 acres of the \$2.50 land, after an actual settlement and cultivation of the same for five years. Under the timber culture law, any settler who has cultivated for two years as much as five acres in trees of an 80-acre homestead, or ten acres of a homestead of 160 acres, is entitled to a free patent for the land at the end of eight years.

APPALLING DEPTHS OF SPACE.

DISTANCES THAT STUN THE MIND AND BAFFLE COMPREHENSION.

"The Stars," though appearing small to us because of their immense distance, are in reality great and shining suns. If we were to escape from the earth into space, the moon, Jupiter, Saturn, and eventually the sun would become invisible; Mizar, the middle star in the tail of the Great Bear, is forty times as heavy as the sun. To the naked eye there are five or six

thousand of these heavenly bodies visible.

Cygni is the nearest star to us in this part of the sky. Alpha Centauri, in the constellation of Centaur, in the Southern Hemisphere, is the nearest of all the stars. The sun is off 93,000,000 miles; multiply this by 200,000, and the result is, roughly speaking, 20,000,000,000,000; and this is the distance we are from Alpha Centauri. The speed of an electric current, 180,000 miles per second, a message to be sent from a point on the earth's surface, would go seven times around the earth in one second. Let it be supposed that messages were sent off to the different heavenly bodies. To reach the moon at this rate it would take about one second. In eight minutes a message would get to the sun, and allowing for a couple of minutes' delay, one could send a message to the sun and get an answer all within twenty minutes. But to reach Alpha Centauri it would take three years; and as this is the nearest of the stars, what time must it take to get to the others? If, when Wellington won the battle of Waterloo in 1815, the news had been telegraphed off immediately, there are some stars so remote that it would not yet have reached them. To go a step further, if in 1066 the result of the Norman Conquest had been wired to some of these stars, the message would still be on its way.

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Interest Laws and Statutes of Limitations.

Alabama Arkansas Arizona California Colorado Connecticut Delaware D. of Columbia Florida Georgia Illinois Indiana Ilwa Inwa Kansas Kansas Kentucky Louisiana Maine Maine Massachusetts Missischus Miss	TERRITORIES.	
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Per ct. Per ct. 7 Any rate. 6 6 6 6 6 12 6 6 7 12 6 6 6 6 7 12 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Legal Allowed Rate by Contract.	

[•] Under seal, 10 years. † If made in State; if outside, 2 years. ‡ No law and no decision regarding judgments. § Unless a different rate is expressly stipulated. || Under seal, 20 years. @ Store accounts; other accounts 3 years; accounts between merchants 5 years. †† New York has by a recent law

A HAWK flies 150 miles per hour; an eider duck, 90 miles; a pigeon, 40 miles.

A MAN'S working life is divided into four decades: 20 to 30, bronze; 30 to 40, silver; 40 to 50, gold; 50 to 60, iron. Intellect and judgment are strongest between 40 and 50.

HAIR which is lightest in color is also lightest in weight. Light or blonde hair is generally the most luxuriant, and it has been calculated that the average number of hairs of this color on an average person's head is 140,000; while the number of brown hairs is 110,000, and black only 103,000.

GOLDSMITH received \$300 for "The Vicar of Wakefield;" Moore, \$15,500 for "Lalla Rookh;" Victor Hugo, \$12,000 for "Hernani;" Chateaubrland, \$110,000 for his works; Lamartine, \$16,000 for "Travels in Palestine;" Disraeli, \$50,000 for "Endymion;" Anthony Trollope, \$315,000 for forty-five novels; Lingard, \$21,000 for his "History of England;" Mrs. Grant received over \$600,000 as royalty from the sale of "The Personal Memoirs of U. S. Grant."

ONE woman in 20, one man in 30 is barren—about 4 per cent. It is found that one marriage in 20 is barren—5 per cent. Among the nobility of Great Britain, 21 per cent have no children, owing partly to intermarriage of cousins, no less than 4½ per cent being married to cousins.

THE largest bells are the following, and their weight is given in tons: Moscow, 216; Burmah; 117; Pekin, 53; Novgorod, 31; Notre Dame, 18; Rouen, 18; Olmutz, 18; Vienna, 18; St. Paul's, 16; Westminster, 14; Montreal, 12; Cologne, 11; Oxford, 8; St. Peter's, 8. Bell metal should have 77 parts coper and 23 tin.

AMERICAN life average for professions (Boston): Store-keepers, 41.8 years; teamsters, 43.6 years; laborers, 44.6 years; seamen, 46.1 years; mechanics, 47.3 years; merchants, 48.4 years; lawyers, 52.6 years; farmers, 64.2 years.

THE number of saving banks in the United States in 1901 was 10,007; number of depositors, 6,373,098; amount of deposits, \$2,601,189,291. In two European countries the number of depositors is greater, namely, Great Britain, with 9,493,838, and Germany with 8,049,599. The largest deposits were in Germany, with \$1,255,000,000. In Great Britain large sums saved are invariably invested in government securities, for the actual savings in Great Britain probably nearly correspond to the number of depositors.

A CAMEL has twice the carrying power of an ox; with an ordinary load of 400 lbs he can travel 12 to 14 days without water, going 40 miles a day. Camels are fit to work at 5 years old, but their strength begins to decline at 25, although they live usually till 40.

THE checks paid in New York in one year aggregate \$77,-020.672,494, which is more than nine times the value of all the gold and silver coin in existence.

POUNDS of water exaporated by 1 lb. of fuel as follows:

Straw, 1.9; wood, 3.1; peat, 3.8; coke or charcoal, 6.4; coal, 7.9; petroleum, 14.6.

THE average elevation of continents above sea level is: Europe, 670 feet; Asia, 1,140 feet; North America, 1,150 feet; South America, 1,100 feet.

IN 1684, four men were taken alive out of a mine in England, after 24 days without food. In 1880, Dr. Tanner, in New York, lived on water for 40 days, losing 36 lbs. in weight.

A BODY weighing 140 lbs. produces 3 lbs. ashes; time for

burning, 55 minutes.

THE seven largest diamonds in the world weigh, respectively, as follows: Kohinoor, 103 carats; Star of Brazil, 126 carats; Regent of France, 136 carats; Austrian Kaiser, 139 carats; Russian Czar, 195 carats; Rajah of Borneo, 367 carats; Braganza, 1,880 carats. The value of the above is not regulated by size, nor easy to estimate, but none of them is worth less than \$500,000.

ACCORDING to Orfila, the proportion of nicotine in Havana tobacco is 2 per cent; in French, 6 per cent, and in Virginia

tobacco, 7 per cent. That in Brazilian is still higher.

THERE are 131,000 lepers in India, according to Mulhall. The numbers in Spain and Italy are considerable. In the Sandwich Islands the disease is so prevalent that the island of Molokai is set apart for lepers, who are under the direction of a French Jesuit priest. The death of Father Damien, in 1889, called attention to the noblest instance of self-sacrifice recorded in recent times. His place is now filled by a younger member of his order, who voluntarily sacrifices his health and life to aid the outcasts. In the Seychelles Islands leprosy is also common.

ONE horsepower will raise 16½ tons per minute a height of 12 inches, working 8 hours a day. This is about 9,900 foot-tons

daily, or 12 times a man's work.

GOOD clear ice two inches thick will bear men to walk on; four inches thick will bear horses and riders; six inches thick

will bear horses and teams with moderate loads.

THE percentage of illegitimate birth for various countries, as stated by Mulhall, is as follows: Austria, 12.9; Denmark, 11.2; Sweden, 10.2; Scotland, 8.9; Norway, 8.05; Germany, 8.04; France, 7.02; Belgium, 7.0; United States, 7.0; Italy, 6.8; Spain and Portugal, 5.5; Canada, 5.0; Switzerland, 4.6; Holland, 3.5;

Russia, 3.1: Ireland, 2.3; Greece, 1.6.

INDIA RUBBER is obtained mostly from the Seringueros of the Amazon, who sell it for about 12 cents a pound to the merchants of Para, but its value on reaching England or the United States is over 50 cents a pound. The best rubber forests in Brazil will ultimately be exhausted, owing to the reckless mode followed by the Seringueros, or tappers. The Bureau of American Republics reports the annual production of rubber as follows: Brazil and Peru, Para rubber, 45,000,000 pounds; Brazil, Ceara and Mangabairn rubber, 15,900,000 pounds; rest of South America, 7,000,000 pounds; Central America and Mexico, 5,000,000 pounds; Malay Islands, 2,000,000 pounds; Africa, 48,000,000

pounds; Madagascar, Mauritius, India and Ceylon, 1,815,000 pounds. Total, 125,315,000 pounds. The disposition of this is as follows: Consumed by the United States and Canada, 40,000,000 pounds; by Great Britain and Colonies, except Canada, 45,000,000 pounds; Continent of Europe, 40,000,000 pounds.

ONE pair of rabbits can become multiplied in four years into 1,250,000. Australia ships 6,000,000 rabbit skins yearly to England.

THE largest of the Pyramids, that of Cheops, is composed of four million tons of stone, and occupied 100,000 men during 20 years, equal to an outlay of \$200,000,000. It would now cost \$20,-000,000 at a contract price of 36 cents per cubic foot.

ONE tug on the Mississippi can take, in six days, from St. Louis to New Orleans, barges carrying 10,000 tons of grain, which would require 70 railway trains of fifteen cars each. Tugs in the Suez Canal tow a vessel from sea to sea in 44 hours.

COMPARATIVE SCALE OF STRENGTH.—Ordinary man, 100; Byron's Gladiator, 173; Farnese Hercules, 362, horse, 750.

A MAN will die for want of air in five minutes; for want of sleep, in ten days; for want of water, in a week; for want of food, at varying intervals, dependent on various circumstances.

THE average of human life is 33 years. One child out of every four dies before the age of 7 years, and only one-half of the world's population reach the age of 17. One out of 10,000 reaches 100 years. The average number of births per day is about 120,000, exceeding the deaths by about 15 per minute. There have been many alleged cases of longevity in all ages, but only a few are authentic.

THE various nations of Europe are represented in the list of Popes as follows: English, 1; Dutch, 1; Swiss, 1; Portuguese, 1; African, 2; Austrian, 2; Spanish, 5; German, 6; Syrian, 8; Greek, 14; French, 16; Italian, 197; Eleven Popes reigned over 20 years; 69, from 10 to 20; 57, from 5 to 10; and the reign of 116 was less than 5 years. The reign of Pius IX. was the longest of all, the only one exceeding 25 years. Pope Pius X. is the 259th pontiff.

CAPACITY of the largest public buildings in the world: Coliseum, Rome, 87,000; St. Peter's, Rome, 54,000; Theater of Pompey, Rome, 40,000; Cathedral, Milan, 37,000; St. Paul's, Rome, 32,000; St. Paul's London, 31,000; St. Petronia, Bologna, 26,000; Cathedral, Florence, 24,300; Cathedral, Antwerp, 24,000; St. John Lateran, Rome, 23,000; St. Sophia's, Constantinople, 23,000; Notre Dame, Paris, 21,500; Theater of Marcellus, Rome, 20,000; Cathedral, Pisa, 13,000; St. Stephen's, Vienna, 12,400; St. Dominic's, Bologna, 12,000; St. Peter's, Bologna, 11,400; Cathedral, Vienna, 11,000; Gilmore's Garden, New York, 8,443; La Scala, Milan, 8,000; Auditorium, Chicago, 7,000; Mormon Temple, Salt Lake City, 8,000; St. Mark's, Venice, 7,500; Spurgeon's Tabernacle, London, 6,000; Bolshoi Theater, St. Petersburg, 5,000; Tabernacle (Talmage's), Brooklyn, 5,000; Music Hali, Cincinnati, 4,824.

THERE are 3,000,000 opium smokers in China. A paper read before the New York Medical Society by Dr. F. N. Hammond

presents some important facts. In 1868 there were about 90,000 habitual opium-eaters in the country; now they number over 500,000. More women than men are addicted to the use of the drug. The vice is one so easily contracted, so easily practiced in private, and so difficult of detection, that it presents peculiar temptations and is very insidious. The relief from pain that it gives and the peculiar exaltation of spirits easily lead the victim to believe that the use of it is beneficial. Opium and chloral are today the most deadly foes of women. Dr. Hammond is the better qualified to speak on this subject from having once been a consumer of opium himself. To break off from the habit, he says, the opium-eater must reduce the quantity of his daily dose, using at the same time other stimulants, and gradually eliminate the deadly drug entirely.

THE degrees of alcohol in wines and liquors are: Beer, 4.0; porter, 4.5; ale, 7.4; cider, 8.6; Moselle, 9.6; Tokay, 10.2; Rhine, 11.0; orange, 11.2; Bordeaux, 11.5; hock, 11.6; gooseberry, 11.8; Champagne, 12.2; claret, 13.3; Burgundy, 13.6; Malaga, 17.3; Lisbon, 18.5; Canary, 18.8; sherry, 19.0; vermouth, 19.0; Cape, 19.2; Malmsey, 19.7; Marsala, 20.2; Madeira, 21.0; Port, 23.2; Curacoa, 27.0; aniseed, 33.0; Maraschino, 34.0; Chartreuse, 43.0; gin, 51.6; brandy, 53.4; rum, 53.7: Irish whisky, 53.9; Scotch, 54.3. Spirits are said to be "proof" when they contain 57 per cent. The maximum amount of alcohol, says Parkes, that a man can take daily without injury to his health is that contained in 2 oz. brandy, ½ pt. of sherry, ½ pt. of claret, or 1 pt. of beer.

THE measurement of that part of the skull which holds the brain is stated in cubic inches thus: Anglo-Saxon, 105; German, 105; negro, 96; ancient Egyptian, 93; Hottentot, 58; Australian native, 58. In all races the male brain is about ten per cent heavier than the female. The highest class of apes has only 16 oz. of brain. A man's brain, it is estimated, consists of 300,000-000 nerve cells, of which over 3,000 are disintegrated and destroyed every minute. Every one, therefore, has a new brain once in sixty days. But excessive labor, or lack of sleep, prevents the repair of the tissues, and the brain gradually wastes away. Diversity of occupation, by calling upon different portions of the mind or body successively, affords, in some measure, the requisite repose to each. But in this age of overwork there is no safety except in that perfect rest which is the only natural restorative of exhausted power. It has been noticed by observant physicians in their European travels that the German people, who, as a rule, have little ambition and no hope to rise above their inherited station, are peculiarly free from nervous diseases; but in America, where the struggle for advancement is sharp and incessant, and there is nothing that will stop an American but death, the period of life is usually shortened five. ten or twenty years by the effects of nervous exhaustion. After the age of 50 the brain loses an ounce every ten years. Cuvier's weighed 64. Byron's 79, and Cromwell's 90 ounces, but the last was diseased. Post-mortem examinations in France give an

average of 55 to 60 ounces for the brains of the worst class of criminals.

IT is estimated that the number of insane persons in the United States is 145,000. Causes of Insanity—Hereditary, 24 per cent; drink, 14 per cent; business, 12 per cent; loss of friends, 11 per cent; sickness, 10 per cent; various, 29 per cent. This result is the medium average arrived at by Mulhall on comparing the returns for the United States, England, France and Denmark.

NO fewer than 1,326 editions of the Bible were published in the sixteenth century. In the seventeenth and eighteenth centuries it was translated and published in many languages by the polyglot press of Propaganda Fide at Rome. In the nineteenth century the English and American societies have printed, in the Protestant version, 124,000,000 copies of the Bible or of the New Testament, viz.: British, 74,000,000; American, 32,000,000

other societies, 15,000,000 copies.

THE King James version of the Bible contains 3,566,480 letters, 773,746 words, 31,173 verses, 1,189 chapters, and 66 books. The word and occurs 46,277 times. The word Lord occurs 1,855 times. The word Reverend occurs but once, which is in the 9th verse of the 111th Psalm. The middle verse is the 8th verse of the 118th Psalm. The 21st verse of the 7th chapter of Ezra contains all the letters of the alphabet except the letter J. The 19th chapter of II Kings and the 37th chapter of Isaiah are alike. The longest verse is the 9th verse of the 8th chapter of Esther. The shortest verse is the 35th verse of the 11th chapter of St. John. There are no words or names of more than six syllables.

SOME OF NATURE'S WONDERS.

THE human body has 240 bones.

MAN'S heart beats 92,160 times in a day.

A SALMON has been known to produce 10,000,000 eggs. Some female spiders produce 2,000 eggs. A queen bee produces 100,000 eggs in a season.

THERE are 9,000 cells in a square foot of honeycomb. IT requires 2,300 silk worms to produce one pound of silk. IT would take 27,600 spiders to produce one pound of web.

THE RULE OF THE ROAD.

THE "rule of the road" in the United States is "turn to the right"; in England it is the reverse. The rule holds in this country in the case where two vehicles going in opposite directions meet. When one vehicle overtakes another the foremost gives way to the left and the other passes by on the "off side"; and when a vehicle is crossing the direction of another it keeps to the left and crosses in its rear. These two rules are the same in this country as in England, and why the rule concerning meeting vehicles should have been changed it is impossible to say.

A KNOT, in sailor phrase, is a nautical mile, 6,080 feet, or 800 feet more than a land mile.

THE GARDEN OF THE GODS is near Colorado Springs and consists of a tract some 50 acres in area surrounded by moun taine and ravines of red sandstone. A number of large upright rocks, some as high as 350 feet, have given the beautiful valley its name. It is entered by a very narrow pass called the "Beautiful Gate."

THE Trans-Siberian Railway is 6,003 miles long and was built at a cost of \$201,350,860.

THE longest reigns in English history were: Victoria, 64 years; George III., 60; Henry III., 56; Edward III., 50; Elizabeth, 45; Henry VIII., 38.

THE highest mountain in North America is Mt. McKinley, at the headwater of the Suswhitna and Kuskokwim rivers, Alaska. Its height is 20,464 feet.

THE largest viaduct in the world was designed and built by American engineers for the English railway in Burma. It crosses the Gokteik gorge, eighty miles from Mandalay. It is 2,260 feet long and 325 feet high, and was constucted in 1900.

Scripture Weights and Measures.

Jewish Weights and Their Equivalents in Troy:

The Gerah (one-twentieth of a shekel), 12 gr.; the Bekah (half a shekel), 5 oz.; the Shekel, 10 oz.; the Maneh, 2 lbs. 6 oz.; the Talent, 125 lbs.

LIQUID MEASURE REDUCED TO WINE MEASURE.

	Gal.	Pts.
A Caph	0	0.625
1.3—A Log	. 0	0.833
5.3— 4—A Cab	. 0	3.333
16 — 12— 3—A Hin	. 1	2
32 - 24- 6- 2-A Seah	. 2	4
96 - 72-18-6-3-A Bath, Ephah, or Firkin	. 7	4.50
960 —720—180—60—30—10—A Kohr, Cheros, or Homer.	. 75	5.25

DRY MEASURE REDUCED TO CORN MEASURE.

Bu	Pks.	Gal.	Pts.
A Gachal0	0	0	1.141
20—A Cab0	0	0	2.833
36— 1.8—An Omer, or Gomer			
120— 6 — 3.3—A Seah			
360—18 — 10 — 3—An Ephah0	3	0	3
1800— 90 — 50 — 5—A Letech4			
3600—180 —100 —30—10—2—A Homer, or Kor\$			

A Trip Around the World.

THE imaginary Mr. Fogg, of Jules Verne's story, made the circuit of the world in 80 days. But George Francis Train made

a record in 1890 of 67 days, 13 hours, 3 minutes, and 3 seconds, stopping over one day in New York (time not included). The Siberian Railroad, however, when completed, will vastly reduce the time necessary to circumnavigate the globe. The Russian Minister of Railroads has made the following public prediction of the time that will be required for world transit by the way of Siberia, provided maximum speed is attained throughout and connections are immediate:

		Days.
\mathbf{From}	St. Petersburg to Vladivostock	. 10
From	Vladivostock to San Francisco	. 10
From	San Francisco to New York	41/2
From	New York to Bremen	. 7
From	Bremen to St. Petersburg	. 11/2
Tot	tal	22

State Flowers.

THE following are "State Flowers," as adopted in most instances by the votes of the public school scholars of the respective States: Alabama, Golden Rod; Colorado, Purple Blossom; California, California Poppy; Colorado, Purple Columbine; Delaware, Peach Blossom; Florida, Japonica; Idaho, Syringa; Illinois, Rose; Indiana, Corn; Iowa, Wild Rose; Kansas, Sunflower; Louisiana, Magnolia; Maine, Pine Cone; Michigan, Apple Blossom; Minnesota, Moccasin; Mississippi, Magnolia; Montana, Bitter Root; Nebraska, Golden Rod; New Jersey, State tree, Sugar Maple; New York, Rose; New Mexico, Rose, Crimson Rambler; North Carolina, Chrysanthemum; North Dakota, Golden Rod; Oklahoma, Mistletoe; Oregon, Oregon Grape; Rhode Island, Violet; Texas, Blue Bonnet; Utah, Sego Lily; Vermont, Red Clover; Washington, Rhododendron.

Great Fires and Conflagrations.

London, Sept. 2-6, 1666.—Eighty-nine churches, many public buildings and 13,200 houses destroyed; 400 streets laid waste; 200,000 persons homeless. The ruins covered 436 acres.

New York, Dec. 16, 1835.—Six hundred buildings; loss, 20,-

000,000. Sept. 6, 1839.—\$10,000,000 worth of property.

Pittsburg, April 10, 1845.—1,000 buildings; loss, \$6,000,000.

Philadelphia, July 9, 1850.—350 buildings; loss, \$1,500,000; 25 persons killed; 9 drowned; 120 wounded.

St. Louis, May 4, 1851.—Large portion of the city burned; loss, \$15,000,000.

San Francisco, May 2-5, 1851.—2,500 buildings; loss. \$3,500,000; many lives lost. June 22, 1851.—500 buildings; loss \$3,000,000.

Santiago (Spain), Dec. 8, 1863.—A fire in the church of the Campania, beginning amid combustible ornaments; 2,000 persons killed, mostly women.

Charleston, S. C., Feb. 17, 1865.—Almost totally destroyed, with

large quantities of naval and military stores.

Richmond, Va., April 2-3, 1865.—In great part destroyed by fire at time of Confederate evacuation.

Portland, Me., July 4, 1866.—Almost entirely destroyed; loss,

\$15,000,000.

Chicago, Oct. 8-9, 1871.—Three and one-half square miles laid waste; 17,450 buildings destroyed; 200 persons killed; 98,500 made Lomeless. July 14, 1874.—Another great fire; loss, \$4,000,000.

Great forest fires in Michigan and Wisconsin, Oct. 8-14, 1871.—

2,000 lives lost.

Boston, Nov. 9-11, 1872.—800 buildings; loss, \$73,000,000; 15 killed. Fall River, Mass., Sept. 19, 1874.—Great factory fires; 60 persons killed.

St. John, N. B., June 21, 1876.—Loss, \$12,500,000.

Brooklyn Theater burned, Dec. 5, 1876.—300 lives lost. Seattle and Spokane, Wash., 1889.—About \$10,000,000 each.

Jacksonville, Fla., May 4, 1901.—Loss, \$11,000,000; 10,000 persons homeless; several lives lost.

Great Floods and Inundations.

An inundation in Cheshire, England, A. D. 353.—3,000 persons perished.

Glasgow, A. D. 758.-More than 400 families drowned.

Dort, April 17, 1412.—72 villages submerged; 100,000 people drowned.

Overflow of the Severn, A. D. 1483, lasting ten days.—Men, women and children carried away in their beds, and the waters covered the tops of many mountains.

General inundation in Holland, A. D. 1530.—By failure of dikes;

400,000 said to have been drowned.

At Catalonia, A. D. 1617.-50,000 drowned.

Johnstown, Pa., May 31, 1889.—By the bursting of a huge reservoir in the mountains, the town was almost entirely destroyed, and about 6,000 persons perished. The water in its passage to Johnstown descended about 250 feet. The theoretical velocity due to this descent would be about 127 feet per second or between 86 and 87 miles an hour. According to the best accounts from 15 to 17 minutes were occupied in the passage to Johnstown, a distance of about twelve miles. Thus the average velocity could not have been far short of 50 miles an hour. The impetus of such a mass of water was irresistible. As the flood burst through the dam it cut trees away as if they were stalks of mullein.

Galveston, Texas, Sept. 8, 1900 .- A tidal wave overwhelmed the

city, destroying property valued at \$17,000,000.

Chronology of Electrical Progress.

ALESSANDRO VOLTA discovered electric current, 1800. SIR HUMPHREY DAVY produced arc light, 1810.

FARADAY discovered induction, 1831.

MORSE first suggested electric telegraph, 1832.

THOMAS DAVENPORT, of Brandon, Vt., built first electric road, 1835; invented automobile same year.

MORSE constructed first recording electric telegraph apparatus, 1835.

WHEATSTONE AND COOKE system of telegraphy invented, 1835.

DANIELL invented zinc-copper battery, 1836.

FIRST submarine cable laid across Hugli River (India), 1839.

FIRST Morse telegraph line constructed, 1844, between Washington and Baltimore.

PRINTING telegraph system invented by Royal House, 1846.

AUTOMATIC repeater invented, 1848.

FIRST long cable laid in British Channel, 1850.

FIRST successful Atlantic cable laid, 1858.

JAMES ELKINGTON invented electrolytic copper refining, 1865.

STEARNS introduced duplex telegraph system, 1872.

EDISON discovered quadruplex system, 1874.

GEORGE F. GREEN, of Kalamozoo, Mich., built first modern electric road, 1875.

BELL AND GRAY invented telephone, 1875.

GRAMME discovered continuous current dynamo, 1876.

FIRST telephone exchange at New Haven, Conn., 1878.

EDISON invented incandescent lamp, 1879.

FIRST central electric lighting station established, 1880, in Pearl Street, New York.

PLANTE invented storage battery, or accumulator, 1882.

J. C. HENRY built first practical trolley line, 1884, in Kansas City.

SIEMENS BROS. built first European electric road, 1884, in Berlin.

ELECTRICITY first used on elevated roads, 1885, in New York City.

FIRST long-distance, high-voltage power transmission plant installed, 1892, at Pomona, Cal.

ELISHA GRAY invented telautograph, 1893.

HEAVY trains first moved by electric locomotives, 1895, in Baltimore.

DR. WILHELM KONRAD ROENTGEN discovered X-ray, 1895.

AUTOMOBILES first came into general use in 1897.

DR. M. I. PUPIN perfected trans-Atlantic telephone, 1900. BY means of the wireless system of telegraphy elaborated by Marconi, signals were first sent across the Atlantic Ocean Dec. 11 and 12, 1901. The European station was at Poldhu, near the Lizard, in Cornwall, England, and that on this side at St. Johns, N. F. Only the latter "S" was telegraphed, but the possibility of sending messages across the ocean without the use of cables was fully demonstrated. The distance between the stations was about 1,700 miles. The first complete wireless message was sent Jan. 19, 1903. On Jan. 30 of that year President Roosevelt sent a wireless message from Cape Cod to King Edward in London, the first ever sent over so long a distance—3,000 miles.

Merit to gain a heart, and sense to keep it.

Money to him that has spirit to use it.

More friends and less need of them.

May those who deceive us be always deceived.

May the sword of justice be swayed by the hand of mercy.

May the brow of the brave never want a wreath of laurel.

May we be slaves to nothing but our duty, and friends to nothing but real merit.

May he that turns his back on his friend, fall into the hands of his enemy.

May honor be the commander when love takes the field.

May reason guide the helm when passion blows the gale.

May those who would enslave become slaves themselves.

May genius and merit never want a friend.

May the road of happiness be lighted by virtue.

May life last as long as it is worth wearing.

May we never murmur without a cause, and never have a cause to murmur.

May the eye that drops for the misfortunes of others never shed a tear for its own.

May the lovers of the fair sex never want means to support and spirit to defend them.

May the tear of misery be dried by the hand of commiseration.

May the voyage of life end in the haven of happiness.

Provision to the unprovided.

Peace and honest friendship with all nations; entangling alliances with none.

Riches to the generous, and power to the merciful.

Short shoes and long corns to the enemies of freedom.

Success to the lover, and joy to the beloved.

The life we love, with whom we love.

The friend we love, and the woman we dare trust.

The union of two fond hearts.

The lovers of honor, and honorable lovers.

The unity of hearts in the union of hands.

The love of liberty, and liberty in love.

The liberty of the press without licentiousness.

The virtuous fair, and the fair virtuous.

The road to honor through the plains of virtue.

The hero of Saratoga-may his memory animate the breast of every American.

The American's triumvirate, love, honor and liberty.

The memory of Washington.

May the example of the new world regenerate the old.

Wit without virulence, wine without excess, and wisdom without affectation.

What charms, arms and disarms.

Home pleasant, and our friends at home.

Woman: She needs no eulogy, she speaks for herself.

Friendship: May its lamp ever be supplied by the oil of truth and fidelity.

THE ARMERICAN NAVY .- May it ever sail on the sea of glory.

MAY those who are discontented with their own country leave their country for their country's good.

DISCRETION in speech is more than eloquence. May we always remember these three things: The manner, the place and the time.

Here's a sigh to those who love me,
And a smile to those who hate,
And whatever sky's above me,
Here's a heart for every fate.
Were't the last drop in the well,
As I gasped upon the brink,
Ere my fainting spirit fell,
'Tis to thee that I would drink.—Byron.

CADDY'S TOAST IN "ERMINIE."—'Ere's to the 'ealth o' your Royal 'Ighness; hand may the skin o' ha gooseberry be big enough for han humbrella to cover hup hall your enemies.

Here's to the girl I love,
And here's to the girl who loves me,
And here's to all that love her whom I love,
And all those that love her who love me.

I will drink to the woman who wrought my woe,
In the diamond morning of long ago;
To the splendor, caught from Orient skies,
That thrilled in the dark of her hazel eyes,
Her large eyes filled with the fire of the south,
And the dewy wine of her warm red mouth.—Winter.

May those that are single get wives to their mind, And those that are married true happiness find.

Here's a health to me and mine, Not forgetting thee and thine: And when thou and thine Come to see me and mine, May we and mine make thee and thine As welcome as thou and thine. Have ever made me and mine.

INDUSTRY.—The right hand of fortune, the grave of care, and the cradle of content.

Here's to the prettiest, Here's to the wittiest, Here's to the truest of all who are true. Here's to the sweetest one, Here's to them all in one—here's to you.

OUR COUNTRY.—May she always be in the right—but, right or wrong, Our Country.—Stephen Decatur.

HERE'S to our sweethearts and our wives. May our sweetnearts soon become our wives and our wives ever remain our sweethearts.

> Here's to the girls of the American shore; I love but one, I love no more. Since she's not here to drink her part, I drink her share with all my heart.

Here's to one and only one,
And may that one be she
Who loves but one and only one,
And may that one be me.

Some hae meat and canna' eat, And some wad eat who want it; But we hae meat and we can eat, So let the Lord be thankit.

A glass is good and a lass is good,
And a pipe to smoke in cold weather.
The world is good and the people are good,
And we're all good fellows together.

Yesterday's yesterday while to-day's here, To-day is to-day till to-morrow appear, To-morrow's to-morrow until to-day's past, And kisses are kisses as long as they last.

OUR COUNTRY.—To her we drink, for her we pray,
Our voices silent never;
For her we'll fight, come what may;
The Stars and Stripes forever.

Through this toilsome world, alas, Once, and only once, we pass. If a kindness we may show, If a good deed we may do To our suffering fellow-men, Let us do it, for 'tis plain, We shall not pass this way again.

WOMAN.—The fairest work of the great Author; the edition is large, and no man should be without a copy.

Drink to me only with thine eyes,
And I will pledge with mine;
Or leave a kiss within the cup,
And I'll not look for wine.
The thirst that from the soul doth rise
Doth ask a drink divine;
But might I of Jehovah's nectar sip,
I would not change from thine.—Ben Jonson.

Drink to-day and drown all sorrow; You shall perhaps not do't to-morrow; Best while you have it, use your breath; There is no drinking after death.—Beaumont and Fletcher.

HOME.—The father's kingdom; the child's paradise; the mother's world.

OUIDA'S FAVORITE TOAST:-

Here's to those I love;
Here's to those who love me;
Here's to those who love those I love,
And here's to those who love those who love me.

The Man We Love.—He who thinks the most good and speaks the least ill of his neighbor.

False Friends.—May we never have friends who, like shadows, keep close to us in the sunshine only to desert us on a cloudy day or in the night.

Here's to tho. who'd love us if we only cared. Here's to those we'd love if we only dared.

Here's to one another and one other, whoever he or she may be.

A little health, a little wealth,
A little house and freedom,
With some friends for certain ends,
But little cause to need 'em.

Here's to the lasses we've loved, my lad, Here's to the lips we've pressed; For of kisses and lasses,

Like liquor in glasses, The last is always the best.

Come in the evening, come in the morning, Come when you're looked for, come without warning.

Here's to a long life and a merry one, A quick death and an easy one, A pretty girl and a true one, A cold bottle and another one.

The world is filled with flowers,
And flowers are filled with dew,
And dew is filled with love \(\cdot\)
And you and you and you.

Here's to you as good as you are,
And to me as bad as I am;
And as good as you are and as bad as I am,
I'm as good as you are as bad as I am.

THE LAW.—The only thing certain about litigation is its uncertainty.

THE LAWYER—Learned gentleman, who rescues your estate from your enemies and keeps it for himself.

A SPREADEAGLE TOAST.—The Boundaries of Our Country: East, by the rising sun; north, by the north pole; west, by all creation; and south, by the day of judgment.

When going up the hill of prosperity may you never meet a friend coming down.

Here's a health to the future; a sigh for the past; We can love and remember, and hope to the last, And for all the base lies that the almanacs hold While there's love in the heart we can never grow old.

May the hinges of friendship never grow rusty.

Come, come, good wine is a good familiar creature, if it be well used.—Shakespeare.

Shall I ask the brave soldier who fights by my side in the cause of mankind whether our creeds agree?

May all single men be married, and all married men be happy.

OUR COUNTRY'S EMBLEM:-

The lily of France may fade,
The thistle and shamrock wither,
The oak of England may decay,
But the stars shine on forever.

God made man
Frail as a bubble;
God made Love,
Love made trouble;
God made the Vine;
Was it a sin
That man made wine
To drown trouble in?

The Good Things of the World.—Parsons are preaching for them, lawyers are pleading for them, physicians are prescribing for them, authors are writing for them, soldiers are fighting for them, but true philosophers alone are enjoying them.

My life has been like sunny skies
When they are fair to view;
But there never yet were lives or skies
Clouds might not wander through.

The Three Great American Generals.—General Peace, General Prosperity and General Satisfaction.

AMERICA.—"Our hearts, our hopes are all with thee,
Our hearts, our hopes, our prayers, our tears,
Our faith triumphant o'er our fears,
Are all with thee, are all with thee."

Our National Birds.—The American Eagle, the Thanksgiving Turkey: may one give us peace in all our states—and the other a piece for all our plates.

OPPORTUNITY,

John J. Ingalls' Famous Sonnet.

Master of human destinies am I.
Fame. Love and Fortune on my footsteps wait,
Cities and fields I walk; I penetrate
Deserts and seas remote, and, passing by
Hovel, and mart, and palace, soon or late
I knock unbidden once at every gate!
If sleeping, wake—if feasting, rise before
I turn away. It is the hour of fate,
And they who follow me reach every state
Mortals desire, and conquer every foe
Save death; but those who doubt or hesitate,
Condemned to failure, penury, and woe,
Seek me in vain and uselessly implore:
I answer not, and I return no more.

SOME RIDDLES OUR GRANDFATHERS SOLVED

Feet have they, but they walk not—stoves. Eyes have they, but they see not—potatoes. Noses have they, but they smell not—tea-pots. Mouths have they, but they taste not—rivers. Hands have they, but they handle not—clocks. Ears have they, but they hear not—corn stalks. Tongues have they, but they talk not—wagons.

What thing is that which is lengthened by being cut at both

ends? A ditch.

Why do we all go to bed? Because the bed will not come to us.

Why is Paris like the letter F? Because it is the capital of France.

In which month do ladies talk least? In February.

Why is a room full of married folks like an empty room? There is not a single person in it.

Why is a peach-stone like a regiment? It has a kernel

(Colonel).

Why is an island like the letter T? Because it is in the midst of wa-t-er.

When is a door not a door? When it is ajar (a jar).

Why is a bee-hive like a spectator? Because it is a bee-holder (beholder).

What is that which a train cannot move without, and yet is

not the least use to it? A noise.

When is a man over head and ears in debt? When the hat he has on is not paid for.

Why is a man led astray like one governed by a girl? He

is misled (miss-led).

Why is a Jew in a fever like a diamond? He is a Jew ill (jewel).

Why are fixed stars like pen, ink and paper? They are

stationary (stationery).

Why do cats see best in the dark? Because they eat (lights).

What is that which is always invisible and never out of sight? The letter I.

Why is a cook like a barber? He dresses hare (hair).

Why is a waiter like a race horse? He often runs for a plate or a cup.

Why is a madman like two men? He is one beside himself. Why is a good story like a church bell? It is often told (tolled).

What is the weight of the moon? Four quarters.

SOME RIDDLES OUR GRANDFATHERS SOLVED.

What sea would make the best bed-room? Adriatic (a-dry-attic).

Why is Ireland likely to become rich? Because the capital

is always Dublin (doubling).

What two letters make a county in Massachusetts? S. X.

(Essex).

Why is a good saloon like a bad one? Both Inn convenient. Why do dentists make good politicians? Because they have a great pull.

Why is the Hudson river like a shoe? Because it is a great

place for tows (toes).

Why is a race at a circus like a big conflagration? Because

the heat is in tents (intense).

Which is the left side of a plum pudding? The part that is not eaten.

Why is a man who runs in debt like a clock? He goes on tick.

Why is the wick of a candle like Athens? It is in the midst of grease (Greece).

Why are deep sighs like long stockings? Heigh-ho's (high

hose).

What occupation is the sun? A tanner.

Why are your eyes like stage horses? They are always under lashes.

Why are your teeth like verbs? Regular, irregular and defective.

What word makes you sick if you leave out one of its letters? Music.

What word of ten letters can be spelled with six? Expediency (X P D N C E).

Why should red-headed men be chosen for soldiers? They

carry fire-locks.

Why is the letter D like a sailor? It follows the sea (C).

Why is a theological student like a merchant? Both study the Prophets (profits).

If the alphabet were invited out to dine, what time would

U, V, W, X, Y and Z go? After tea (T).

How can you take one from nineteen and leave twenty? XIX-XX.

Why are Protestants like flies? They are in sects (insects). Why are the eye-brows like mistakes? They are over sights (oversights).

Why is an Irishman turning over like a policeman on duty?

He is Pat rolling (pa-trolling).

LAST WORDS OF FAMOUS PEOPLE.

"'Tis well."—George Washington.

"Tete d'armee."—Napoleon.

"My country! How I love my country."—Wm. Pitt.

"So much the better. I shall not live to see the surrender of Quebec."—Gen. Montcalm.

"I thank God that I have done my duty."—Admiral Nelson. "I pray thee see me safe up, but for my coming down I can shift for myself," were the last words of Sir Thomas Moore when ascending the scaffold.

"God bless you," were the dying words of the celebrated

Dr. Johnson.

"Wonderful, wonderful, this death."-Etty.

"I have finished."—Hogarth. "Dying, dying."—Thos. Hood.

"And I shall see many strange animals by the way."—Frank Buckland.

"I feel as one who is waiting and waited for."—Douglas Jerrold.

"Did I not tell you truly that it was for myself that I composed this death chant?"—Mozart.

"Drop the curtain, the farce is played out."—Rabelais.

"I am what I am. I am what I am."-Swift.

"I still live."—Daniel Webster.

"How grand these rays. They seem to beckon earth to heaven."—Humboldt.

"It is now time that we depart—I to die, you to live; but which is the better destination is unknown."—Socrates.

"Adieu, my dear Morand, I am dying."-Voltaire.

"It grows dark. Boys, you may go home."—The dying schoolmaster.

"I am prepared to meet my Maker."—Gen. Lew Wallace.

"My beautiful flowers, my lovely flowers."—Richter.
"James, take good care of the horse."—Winfield Scott.
"Many things are becoming clearer to me."—Schiller.
"I feel the daisies growing over me."—John Keats.

"What, is there no bribing death?"—Cardinal Beaufort.
"Taking a leap in the dark. O, mystery."—Thomas Paine.

"Let the earth be filled with his glory."—Earl of Derby.
"There is not a drop of blood on my hands."—Frederick V.

"I am taking a fearful leap in the dark."—Thomas Hobbes. "Don't let that awkward squad fire over my grave."—Burns.

"Here, veteran, if you think it right, strike."—Cicero.

"My days are past as a shadow that returns not."—R. Hooker.

LAST WORDS OF FAMOUS PEOPLE.

"I thought that dying had been more difficult."—Louis XIV.

"O Lord, forgive me specially my sins of omission."—Usher. "Let me die to the sounds of delicious music."—Mirabeau.

"It is small, very small," alluding to her neck.—Anna Boleyn.

"Let me hear those notes so long my solace and delight."—

Mozart.

"To die for liberty is a pleasure and not a pain."-Morco

"We are as near heaven by sea as by land."—Sir Humphrey

"I do not sleep. I wish to meet death awake."—Maria

"I resign my soul to God; my daughter to my country."— Tefferson.

"I would not change my joy for the empire of the world."—

Philip Sidney.

"Farewell, Livia, and ever remember our long union."—

Augustus Cæsar.

"Into thy hands, O Lord, I commend my spirit."—Christopher Columbus.

THE GREAT FIRE IN BALTIMORE.

Date—Feb. 7-8, 1904.

Loss—\$75,000,000 to \$100,000,000.

Insurance—\$32,864,894.

Acres of Buildings Burned—140.

Shortly before noon on the 7th of February, 1904, fire broke out in the wholesale dry-goods house of Hurst & Co., at German and Liberty streets, in Baltimore, Md. An explosion of gasoline wrecked the building and caused the flames to spread to adjoining structures. Attempts were made to check the progress of the fire by blowing up buildings with dynamite, but without success. The conflagration lasted twenty-seven hours, and when it was finally brought under control almost the entire business section of the city was in ruins. Approximately 140 acres of buildings were consumed and several thousand firms burned out. Insurance men differed in their estimates of the total loss, some placing it at \$70,000,000 to \$75,000,000 and others making it as high as \$125,000,000. The total insurance was \$32,864,894.

Preparations for rebuilding the city were begun immediately and before the close of the year substantial progress in

that direction had been made.

HOW TO CARE FOR A PIANO.

(BY WILLIAM H. DAMON, EXPERT PIANO-FORTE TUNER.)

The first most important thing in the preservation of a plano is to avoid atmospheric changes and extremes and also sudden changes of temperature. Where the summer condition of the atmosphere is damp all precautions possible should be taken to avoid an entirely dry condition in winter, such as that given by steam or furnace heat. In all cases should the air in the home contain moisture enough to permit a heavy frost on the windows in zero weather. The absence of frost under such conditions is positive proof of an entirely dry atmosphere, and this is a piano's most dangerous enemy, causing the sounding-board to crack, shrinking up the bridges, and consequently putting the piano seriously out of tune, also causing an undue dryness in all the action parts and often a loosening of the glue joints, thus producing clicks and rattles. To obviate this difficulty is by no means an easy task and will require considerable attention. Permit all the fresh air possible during winter, being careful to keep the piano out of cold drafts, as this will cause a sudden contraction of the varnish and cause it to check or crack. Plants in the room are desirable and vessels of water of any kind The most potent means of avoiding extreme will be of assistance. dryness is to place a single-loaf bread-pan half full of water in the lower part of the piano, taking out the lower panel and placing it on either side of the pedals *inside*. This should be refilled about once a month during artificial heat, care being taken to remove the vessel as soon as the heat is discontinued in the spring. In cases where stove heat is used these precautions are not necessary.

The action of a piano, like any other delicate piece of machinery, should be carefully examined, and, if necessary, adjusted each time it is tuned. The hammers need occasional and careful attention to preserve original tone quality and elasticity. Never allow the piano to be beaten or played hard upon. This is ruinous to both the action and tuning. When not in use the music rack and top should be closed to exclude dust. The keyboard need never be closed, as the ivory needs both light and ventilation and will eventually turn yellow unless left open.

The case demands careful treatment to preserve its beauty and polish. Never use anything other than a soft piece of cotton cloth or cheese cloth to dust it with. Never wipe it with a dry chamois skin or silk cloth. Silk Is not as soft as cotton and will scratch. A dry chamois skin picks up the dust and grit and gradually scours off the fine finish. In dusting never use a feather duster, nor rub the piano hard with anything. The dust should be whipped off, and not rubbed into the varnish. If the piano is dingy, smoky or dirty looking, it should be washed carefully with lukewarm water with a little ammonia in it to soften it. Never use soap. Use nothing but a small, soft sponge and a chamois skin. Wipe over a small part at a time with the sponge, following quickly with the wet chamois skin wrung out of the same water. This will dry it immediately and leave it as beautiful and clean as new. Never use patent polishes. If your piano needs polishing employ a competent polisher to give it a hand rubbing friction polish. Patent pollshes contain harmful acids and chemicals that eventually ruin the varnish entirely and at best only smear the piano, giving it only a temporary luster. The case demands careful treatment to preserve its beauty and only a temporary luster.

SOME THINGS THAT ARE MISNAMED.

AMERICA was named after Amerigo Vespucci, a naval astronomer of Florence, but he did not discover the New World.

ARABIC figures were invented by the Indians.

BAFFIN'S BAY is no bay at all.

BLACKLEAD is a compound of carbon and iron.

BRIDEGROOM has nothing to do with groom. It is the old English "guma," a man, "bryd-guma."

CATGUT is gut of sheep.

CUTTLE-BONE is not bone, but a structure of pure chalk imbedded loosely in the substance of a species of cuttle-fish.

CLEOPATRA'S NEEDLES were not erected by Cleopatra, nor in honor

of that queen, but by Thothmes III.

Dutch clocks are of German (Deutsch), not Dutch, manufacture.

ELEMENTS. Fire, air, earth, and water, called the four elements, are not elements at all.

GALVANIZED iron is not galvanized—simply iron coated with zinc. GERMAN silver is not silver at all, but a metallic mixture which

has been in use in China time out of mind.
GOTHIC architecture is not that of the Goths, but the ecclesiastical style employed in England and France before the Renais-

sance.

Höneydew is neither honey nor dew, but an animal substance given off by certain insects, especially when hunted by ants. Humble Pie, for "umbil pie." The umbils of venison were

served to inferiors and servants.

JAPAN lacquer contains no lac at all, but is made from the resin of a kind of nut-tree.

JERUSALEM ARTICHOKE has no connection with Jerusalem, but with the sunflower, "girasole."

Kid gloves are not kid at all, but are made of lambskin or sheepskin.

LUNAR caustic is simply nitrate of silver, and silver is the astrological symbol of the moon.

MOTHER OF PEARL is the inner layer of several sorts of shell,

and in some cases the matrix of the pearl.
PEN means a feather. (Latin, "penna," a wing). A steel pen is therefore an anomaly.

Pompey's Pillar, in Alexandria, was erected neither by nor to

Pompey.

Prussian blue does not come from Prussia. It is the precipitate of the salt of protoxide of iron with red prussiate of potass. RICE PAPER is not made from rice, but from the pith of Tung-

tsau, or hollowplant.

SALT (that is, table salt) is not salt at all, but "chloride of sodium."

SEALING-WAX is not wax at all, nor does it contain wax. made of shellac, Venice turpentine, and cinnabar.

SLAVE by derivation should mean noble, illustrious.

SPERM OIL properly means "seed oil," from the notion that it was the spawn or milt of a whale. It is chiefly taken, however, from the head, not the spawn, of the "spermaceti" whale.

TITMOUSE is not a mouse, but a little hedge-sparrow.

TONQUIN BEANS come from Tonka, in Guinea, not Tonquin, in Asia.

Turkeys do not come from Turkey, but North America.

TURKEY RHUBARB grows in the great mountain chain between Tartary and Siberia, and is a Russian monopoly.

TURKISH BATHS are not of Turkish origin.

VENTRILOQUISM is not voice from the stomach, but from the mouth.

WHALEBONE is not bone, nor does it possess any properties of bone. It is a substance attached to the upper jaw of the whale, and serves to strain the water which the creature takes up.

Wormwood has nothing to do with worms or wood; it is the Anglo-Saxon "wer mod," man-inspiriting, being a strong tonic.

POSTAL INFORMATION.

Local, or Drop Letters, two cents for each ounce at all letter carrier offices, and at other offices 1 cent.

Letters to any part of the United States or the Dominion of Canada, 2 cents for each ounce or fraction thereof.

Letters to Great Britain or Ireland, or the Continent of Europe, 5 cents for each half ounce.

Valuable Letters may be registered by paying a charge of 8 cents.

Postal Cards costing one cent each can be sent to any part of the United States or Canada. They may be sent to Newfoundland, Great Britain and Ireland by adding a 1 cent stamp. Private post cards at same rate.

Printed Matter: 1. Printed Books, Periodicals, Transient Newspapers and other matter wholly in print, in unsealed envelopes, 1 cent for each two ounces or fraction thereof.

- 2. Printed circulars may bear the date, address and signature at this rate.
- 3. Reproductions by electric pen, Hektograph, and similar processes, same as Printed Matter.

Articles of Merchandise, Seeds, Cuttings, Roots, and other mailable matter, 1 cent for each ounce or fraction thereof.

All Packages of mail matter not charged with letter postage must be arranged so the same can be conveniently examined by postmasters. If not so arranged, letter postage will be charged.

Articles of Merchandise may be registered at the rate of 8 cents a package, subject to proper examination before registration. The same and the address of sender must be indorsed in writing, or in print, on each package offered for registration.

Any Package may have the name and address of the sender, with the word "from" prefixed on the wrapper, and the number and names of the articles may be added in brief form.

Postal Note, payable to bearer at any money order office, will cost three cents.

Money Orders: For sums not exceeding \$2.50, 3 cents; over \$2.50 to \$5, 5 cents; over \$5 to \$10, 8 cents; over \$10 to \$20, 10 cents; over \$20 to \$30, 12 cents; over \$30 to \$40, 15 cents; over \$40 to \$50, 18 cents; over \$50 to \$60, 20 cents; cents; \$60 to \$75, 25 cents; over \$75 to \$100, 30 cents.

THE STEPS IN THE GROWTH OF AMERICAN LIBERTY.

Magna Charta.

NEARLY seven hundred years ago was organized a movement which resulted in the great charter of English liberty—a movement which foreshadowed the battle of our American forefathers for political independence. On the 25th of August, 1213, the prelates and Barons, tiring of the tyranny and vacillation of King John, formed a council and passed measures to secure their rights. After two years of contest, with many vicissitudes, the Barons entered London and the King fled into Hampshire. By agreement both parties met at Runnymede on the 9th of June, 1215, and after several days' debate, on June 15, Magna Charta (the Great Charter), the glory of England, was signed and sealed by the sovereign. The Magna Charta is a comprehensive bill of rights, and, though crude in form, and with many clauses of merely local value, its spirit still lives and will live. Clear and prominent we find the motto, "No tax without representation." The original document is in Latin and contains sixty-one articles, of which the 39th and 40th, embodying the very marrow of our own State constitutions, are here given as translated in the English statutes:

"39. No freeman shall be taken or imprisoned or be disseised of his freehold, or liberties or free customs, or be otherwise destroped [damaged], nor will we press upon him nor seize upon him [condemn him] but by lawful judgment of his peers or by the law of the land.

"40. We will sell to no man, we will not deny or defer to any man, either right or justice."

The Great Charter recognizes a popular tribunal as a check on the official judges and may be looked upon as the foundation of the writ of Habeas Corpus. It provides that no one is to be condemned on rumor or suspicion, but only on the evidence of witnesses. It affords protection against excessive emercements, illegal distresses and various processes for debts

Steps in the Growth of American Liberty

and services due to the crown. Fines are in all cases to be proportionate to the magnitude of the offense, and even the villein or rustic is not to be deprived of his necessary chattels. There are provisions regarding the forfeiture of land for felony. The testamentary power of the subject is recognized over part of his personal estate, and the rest to be divided between his widow and children. The independence of the church is also provided for. These are the most important features of the Great Charter, which, exacted by men with arms in their hands from a resisting king, occupies so conspicuous a place in history, which establishes the supremacy of the law of England over the will of the monarch, and which still forms the basis of English liberties.

The Mecklenburg Declaration.

ORE than a year before the signing of the Declaration of Independence a document was drawn up that was almost a model in phraseology and sentiment of the great charter of American freedom. There are various accounts of this matter, but the most trustworthy is this:

At a public meeting of the residents of Mecklenburg County, North Carolina, held at Charlotte on the 20th of May, 1775, it was

"Resolved, That whenever directly or indirectly abetted, or in any way, form or manner countenanced, the unchartered and dangerous invasion of our rights, as claimed by Great Britain, is an enemy to our country—to America—and to the

inherent and inalienable rights of man.

"Resolved, That we, the citizens of Mecklenburg County, do hereby dissolve the political bonds which have connected us to the mother country, and hereby absolve ourselves from all allegiance to the British crown, and abjure all political connection, contract or association with that nation, which has wantonly trampled on our rights and liberties, and irhumanly the blood of American patriots at Lexington.

"Resolved, That we do hereby declare ourselves a free and independent people: are and of right ought to be a sovereign and self-governing association, under the control of no power other than that of our God and the general government of the Congress To the maintenance of which independence we

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solemnly pledge to each other our mutual co-operation, our lives, our fortunes, and our sacred honor."

There are two other resolutions, concerning the militia and the administration of the law, but these, having no present value, are here omitted.

The Declaration of Independence. In Congress, July 4, 1776.

WHEN, in the course of human events, it becomes necessary for one people to dissolve the political bonds which have connected them with another, and to assume, among the powers of the earth, the separate and equal station to which the laws of Nature and Nature's God entitle them, a decent respect to the opinions of mankind requires that they should

declare the causes which impel them to the separation.

We hold these truths to be self-evident: that all men are created equal; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness. That to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed; that whenever any form of government becomes destructive of these ends, it is the right of the people to alter or to abolish it, and to institute a new government, laying its foundation on such principles, and organizing its powers in such form as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate that governments long established should not be changed for light and transient causes; and accordingly all experience has shown that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such government, and to provide new guards for their future security. Such has been the patient sufferance of these colonies, and such is now the necessity which constrains them to alter their former systems of government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute tyranny over these States. To prove this, let facts be submitted to a candid world.

He has refused his assent to laws the most wholesome and

necessary for the public good.

Steps in the Growth of American Liberty.

He has forbidden his governors to pass laws of immediate and pressing importance, unless suspended in their operation till his assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other laws for the accommodation of large districts of people, unless those people would relinquish the right of representation in the legislature—a right ines-

timable to them, formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their public records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved representative houses repeatedly, for opposing with manly firmness his invasions on the rights of the

people.

He has refused, for a long time after such dissolutions, to cause others to be elected; whereby the legislative powers, incapable of annihilation, have returned to the people at large, for their exercise, the state remaining, in the meantime, exposed to all the dangers of invasion from without, and convulsions within.

He has endeavored to prevent the population of these States; for that purpose obstructing the laws for naturalization of foreigners, refusing to pass others to encourage their migration hither, and raising conditions of new appropriation of

lands.

He has obstructed the administration of justice, by refus-

ing his assent to laws establishing judiciary powers.

He has made judges dependent on his will alone for the tenure of their offices and the amount and payment of their salaries.

He has erected a multitude of new offices, and sent hither swarms of officers, to harass our people, and to eat out their

substance.

He has kept among us, in times of peace, standing armies,

without the consent of our legislatures.

He has affected to render the military independent of, and

superior to, the civil power.

He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws; giving his assent to their acts of pretended legislation:

For quartering large bodies of armed troops among us.
For protecting them, by mock trial, from punishment for any murders which they should commit on the inhabitants of these States.

For cutting off our trade with all parts of the world.

For imposing taxes on us without our consent.

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For depriving us, in many cases, of the benefits of trial by jury.

For transporting us beyond the seas to be tried for pre-

tended offenses.

For abolishing the free system of English laws in a neighboring province, establishing therein an arbitrary government, and enlarging its boundaries, so as to render it at once an example and fit instrument for introducing the same absolute rule into these colonies.

For taking away our charters, abolishing our most valuable laws, and altering, fundamentally, the forms of our gov-

For suspending our own legislatures and declaring themselves invested with power to legislate for us in all cases what-

He has abdicated government here, by declaring us out of his protection, and waging war against us.

He has plundered our seas, ravaged our coasts, burnt our

towns, and destroyed the lives of our people.

He is, at this time, transporting large armies of foreign mercenaries, to complete the works of death, desolation and tyranny, already begun with circumstances of cruelty and perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the head of a civilized nation.

He has constrained our fellow-citizens, taken captive on the high seas, to bear arms against their country, to become the executioners of their friends and brethren, or to fall them-

selves by their hands.

He has excited domestic insurrection among us, and has endeavored to bring on the inhabitants of our frontiers the merciless Indian savages, whose known rule of warfare is an undistinguished destruction of all ages, sexes and conditions.

In every stage of these oppressions we have petitioned for redress in the most humble terms; our repeated petitions have been answered only by repeated injury. A prince whose character is thus marked by every act which may define a tyrant is unfit to be the ruler of a free people.

Nor have we been wanting in attention to our British brethren. We have warned them, from time to time, of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity; and we have conjured them, by the ties of our common kindred, to disavow these usurpations, which would inevitably interrupt our connection and correspondence. They, too, have been deaf to the voice of justice and of consanguinity. We must, therefore, ac-

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quiesce in the necessity which denounces our separation, and hold them, as we hold the rest of mankind, enemies in war, in

peace friends.

We, therefore, the representatives of the United States of America, in general Congress assembled, appealing to the supreme Judge of the world for the rectitude of our intentions, do, in the name and by the authority of the good people of these colonies, solemnly publish and declare that these United Colonies are, and of right ought to be, free and independent States; that they are absolved from all allegiance to the British crown, and that all political connection between them and the state of Great Britain is, and ought to be, totally dissolved: and that, as free and independent States, they have full power to levy war, conclude peace, contract alliances, establish commerce and to do all other acts and things which independent States may of right do. And for the support of this declaration, with a firm reliance on the Protection of Divine Providence, we mutually pledge to each other our lives, our fortunes and our sacred honor.

The foregoing declaration was, by order of the Congress, engrossed, and signed by the following members:

JOHN HANCOCK.

New Hampshire—Josiah Bartlett, William Whipple, Matthew Thornton.

Massachusetts Bay-Samuel Adams, John Adams, Robert

Treat Paine, Elbridge Gerry.

Rhode Island—Stephen Hopkins, William Ellery.

Connecticut—Roger Sherman, Samuel Huntington, William Williams, Oliver Wolcott.

New York-William Floyd, Philip Livingston, Francis

Lewis, Lewis Morris.

New Jersey-Richard Stockton, John Witherspoon, Fran-

cis Hopkinson, John Hart, Abraham Clark.

Pennsylvania—Robert Morris, Benjamin Rush, Benjamin Franklin, John Morton, George Clymer, James Smith, George Taylor, James Wilson, George Ross.

Delaware—Cæsar Rodney, George Read, Thomas McKean. Maryland—Samuel Chase, William Paco, Thomas Stone,

Charles Carroll of Carrollton.

Virginia—George Wythe, Richard Henry Lee, Thomas Jefferson, Benjamin Harrison, Thomas Nelson, Jr., Francis Lightfoot Lee, Carter Braxton.

North Carolina-William Hooper, Joseph Hewes, John

Penn.

South Carolina—Edward Rutledge, Thomas Heyward, Jr. Thomas Lynch, Jr., Arthur Middleton.

Georgia-Button Gwinnett, Lyman Hall, George Walton.

The following clause formed part of the original Declaration of Independence as signed, but was finally left out of the printed copies "out of respect to South Carolina":

"He [King George III.] has waged cruel war against human nature itself, violating its most sacred rights of life and liberty in the persons of a distant people who never offended him, captivating and carrying them into slavery in another hemisphere or to incur miserable death in their transportation thither. This piratical warfare, the opprobrium of infidel powers, is the warfare of the Christian King of Great Britain. Determined to keep a market where men should be bought and sold, he has at length prostituted his negative for suppressing any legislative attempt to prohibit and restrain this execrable commerce."



Jefferson's Political Policy.

1. Legal equality of all human beings. 2. The people the only source of power. 3. No hereditary offices, nor order of "nobility," nor title. 4. No unnecessary taxation. 5. No national banks or bonds. 6. No costly splendor of administration. 7. Freedom of thought and discussion. 8. Civil authority superior to the military. 9. No favored classes; no special privileges; no monopolies. 10. Free and fair elections; universal suffrage. 11. No public money spent without warrant of law. 12. No mysteries in government hidden from the public eye. 13. Representatives bound by the instructions of their constituents. 14. The Constitution of the United States a special grant of powers limited and 15. Freedom, sovereignty and independence of the respective States. 16. Absolute severance of Church and State. 17 The Union a compact—not a consolidation nor a centralization. 18. Moderate salaries, economy and strict accountability. 19. Gold and silver currency—supplemented by treasury notes bearing no interest and bottomed on taxes. 20. No State banks of issue. 21. No expensive navy or diplomatic establishment. 22. A progressive or graduated tax laid upon wealth. 23. No internal revenue system. A complete separation of public moneys from bank funds.

THE CONSTITUTION OF THE UNITED STATES.

PREAMBLE.

E, the people of the United States, in order to form a more perfect union, establish justice, insure domestic tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.

ARTICLE I.

SECTION I. 1. All legislative powers herein granted shall be vested in a Congress of the United States, which shall con-

sist of a Senate and House of Representatives.

Section II. 1. The House of Representatives shall be composed of members chosen every second year by the people of the several States; and the electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State legislature.

2. No person shall be a representative who shall not have attained to the age of twenty-five years, and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State in which he shall be chosen.

3. Representative and direct taxes shall be apportioned among the several States which may be included within this Union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of representatives shall not exceed one for every thirty thousand, but each State shall have at least one representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to choose three; Massachusetts, eight; Rhode Island and Providence Plantations, one; Connecticut, five; New York, six; New Jersey, four; Pennsylvania, eight; Delaware, one; Maryland, six; Virginia, ten; North Carolina, five; South Carolina, five, and Georgia, three.

4. When vacancies happen in the representation from any State, the executive authority thereof shall issue writs of elec-

tion to fill such vacancies.

5. The House of Representatives shall choose their speaker and other officers; and shall have the sole power of impeachment.

Section III. 1. The Senate of the United States shall be composed of two senators from each State, chosen by the legislature thereof, for six years; and each senator shall have

one vote.

2. Immediately after they shall be assembled in consequence of the first election, they shall be divided as equally as may be into three classes. The seats of the senators of the first class shall be vacated at the expiration of the second year, of the second class at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one-third may be chosen every second year; and if vacancies happen by resignation, or otherwise, during the recess of the legislature of any State, the executive thereof may make temporary appointments until the next meeting of the legislature, which shall then fill such vacancies.

3. No person shall be a senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States, and who shall not, when elected, be an

inhabitant of that State for which he shall be chosen.

4. The Vice-President of the United States shall be president of the Senate, but shall have no vote unless they be

equally divided.

5. The Senate shall choose their other officers, and also a president pro tempore, in the absence of the Vice-President, or when he shall exercise the office of President of the United States.

6. The Senate shall have the sole power to try all impeachments. When sitting for that purpose they shall be on oath or affirmation. When the President of the United States is tried, the Chief Justice shall preside; and no person shall be convicted without the concurrence of two-thirds of the mem-

bers present.

7. Judgment, in cases of impeachment, shall not extend further than to removal from office, disqualification to hold and enjoy any office of honor, trust or profit under the United States; but the party convicted shall nevertheless be liable and subject to indictment, trial, judgment and punishment, according to law.

SECTION IV. 1. The times, places and manner of holding elections for senators and representatives shall be prescribed in each State by the legislature thereof; but the Congress may at any time by law make or alter such regulations, except as

to the places of choosing senators.

2. The Congress shall assemble at least once in every

year; and such meeting shall be on the first Monday in Decem

ber, unless they shall by law appoint a different day.

SECTION V. 1. Each house shall be the judge of the election, returns and qualifications of its own members, and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day and may be authorized to compel the attendance of absent members, in such manner and under such penalties as each house may provide.

2. Each house may determine the rules of its proceedings, punish its members for disorderly behavior, and, with

the concurrence of two-thirds, expel a member.

5. Each house shall keep a journal of its proceedings, and from time to time publish the same, excepting such parts as in their judgment require secrecy; and the yeas and nays of the members of either house on any question shall, at the desire of one-fifth of those present, be entered on the journal.

4. Neither house, during the session of Congress, shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two houses

thall be sitting.

Section VI. 1. The senators and representatives shall receive a compensation for their services, to be ascertained by law, and paid out of the treasury of the United States. They shall, in all cases, except treason, felony, and breach of peace, be privileged from arrest during their attendance at the session of their respective houses, and in going to and returning from the same; and for any speech or debate in either house they shall not be questioned in any other place.

2. No senator or representative shall, during the time for which he was elected, be appointed to any civil office under the authority of the United States, which shall have been created, or the emoluments whereof shall have been increased, during such time; and no person holding any office under the United States shall be a member of either house during his

continuance in office.

SECTION VII. 1. All bills for raising revenue shall originate in the House of Representatives; but the Senate may

propose or concur with amendments as on other bills.

2. Every bill which shall have passed the House of Representatives and the Senate, shall, before it become a law, be presented to the President of the United States; if he approve he shall sign it, but if not he shall return it with his objections, to that house in which it shall have originated, who shall enter the objections at large on their journal, and proceed to reconsider it. If after such reconsideration two-thirds of that house shall agree to pass the bill, it shall be sent, together with the objections, to the other house, by which it shall likewise be

reconsidered and if approved by two-thirds of that house, it shall become a law. But in all such cases the votes of both houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the journal of each house respectively. If any bill shall not be returned by the President within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law in like manner as if he had signed it, unless the Congress, by their adjournment, prevent its return, in which case it shall not be a law.

3. Every order, resolution or vote to which the concurrence of the Senate and the House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and before the same shall take effect, shall be approved by him, or, being disapproved by him, shall be repassed by two-thirds of the Senate and House of Representatives, according to the rules and lim-

itations prescribed in the case of a bill.

Section VIII. The Congress shall have power—

1. To lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defense and general welfare of the United States; but all duties, imposts and excises shall be uniform throughout the United States;

2. To borrow money on the credit of the United States; To regulate commerce with foreign nations, and among

the several States, and with the Indian tribes;

To establish a uniform rule of naturalization, and uniform laws on the subject of bankruptcies throughout the United States:

5. To coin money, regulate the value thereof, and of for-

eign coin, and fix the standard of weights and measures;

To provide for the punishment of counterfeiting the securities and current coin of the United States;

7. To establish post-offices and post-roads;

To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries;

To constitute tribunals inferior to the Supreme Court;

10. To define and punish piracies and felonies committed on the high seas, and offenses against the law of nations;

11. To declare war, grant letters of marque and reprisal,

and make rules concerning captures on land and water;

12. To raise and support armies, but no appropriation of money to that use shall be for a longer term than two years;

13. To provide and maintain a navy;

14. To make rules for the government and regulation of the land and naval forces; 178

15. To provide for calling forth the militia to execute the laws of the Union, suppress insurrections and repel invasions;

16. To provide for organizing, arming and disciplining the militia, and for governing such part of them as may be employed in the service of the United States, reserving to the States, respectively, the appointment of the officers, and the authority of training the militia according to the discipline

prescribed by Congress;

17. To exercise exclusive legislation, in all cases whatsoever, over such district (not exceeding ten miles square) as may, by cession of particular States, and the acceptance of Congress, become the seat of the government of the United States, and to exercise like authority over all places purchased by the consent of the legislature of the State in which the same shall be, for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings;

And to make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers vested by this Constitution in the Government of the

United States, or in any department or officer thereof.

SECTION IX. 1. The migration or importation of such persons as any of the States now existing shall think proper to admit shall not be prohibited by the Congress prior to the year one thousand eight hundred and eight, but a tax or duty may be imposed on such importation, not exceeding ten dollars for each person.

2. The privilege of the writ of *Habeas Corpus* shall not be suspended, unless when, in cases of rebellion or invasion,

the public safety may require it.

3. No bill of attainder or ex post facto law shall be

passed.

4. No capitation or other direct tax shall be laid, unless in proportion to the census or enumeration hereinbefore directed to be taken.

5. No tax or duty shall be laid on articles exported from

any State.

6. No preference shall be given by any regulation of commerce or revenue to the ports of one State over those of another; nor shall vessels bound to or from one State be obliged to enter, clear, or pay duties in another.

7. No money shall be drawn from the treasury but in consequence of appropriations made by law; and a regular statement and account of the receipts and expenditures of all

public moneys shall be published from time to time.

8. No title of nobility shall be granted by the United States; and no person holding any office of profit or trust under them shall, without the consent of the Congress, accept

of any present, emolument, office or title of any kind what-

ever, from any king, prince or foreign state.

Section X. 1. No State shall enter into any treaty, alliance, or confederation; grant letters of marque and reprisal; coin money; emit bills of credit; make anything but gold and silver coin a tender in payment of debts; pass any bill of attainder, ex post facto law, or law impairing the obligation of

contracts, or grant any title of nobility.

2. No State shall, without the consent of the Congress, lay any impost or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws; and the net produce of all duties and imposts laid by any State on imports or exports shall be for the use of the treasury of the United States; and all such laws shall be subject to the revision and control of the Congress. No State shall, without the consent of the Congress, lay any duty of tonnage, keep troops or ships of war in time of peace, enter into any agreement or compact with another State, or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ARTICLE II.

Section I. 1. The executive power shall be vested in a President of the United States of America. He shall hold his office during the term of four years; and, together with the Vice-President chosen for the same term, be elected as follows:

2. Each State shall appoint, in such manner as the legisture thereof may direct, a number of electors equal to the whole number of senators and representatives to which the State may be entitled in the Congress; but no senator or representative, or person holding an office of trust or profit under

the United States, shall be appointed an elector.

3. The electors shall meet in their respective States, and vote by ballot for two persons, of whom one at least shall not be an inhabitant of the same State with themselves. And they shall make a list of all the persons voted for and of the number of votes for each; which list they shall sign and certify and transmit sealed to the seat of government of the United States, directed to the President of the Senate. The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted. The person having the greatest, number of votes shall be the President, if such number be a majority of the whole number of electors appointed; and if there be more than one who have such a majority, and have an equal number of votes, then the House of Representatives shall immediately choose, by ballot, one of them for President

and if no person have a majority, then, from the five highest on the list, the said House shall, in like manner, choose the President. But in choosing the President the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of amember or members from two-thirds of all the States, and a majority of all the States shall be necessary to a choice. In every case, after the choice of the President, the person having the greatest number of votes of the electors shall be the Vice-President. But if there should remain two or more who have equal votes, the Senate shall choose from them, by ballot, the Vice-President.

4. The Congress may determine the time of choosing the electors, and the day on which they shall give their votes, which day shall be the same throughout the United States.

5. No person, except a natural-born citizen, or a citizen of the United States at the time of the adoption of this Constitution, shall be eligible to the office of President; neither shall any person be eligible to that office who shall not have attained the age of thirty-five years, and been fourteen years a resident within the United States.

6. In case of the removal of the President from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the Vice-President; and the Congress may, by law, provide for the case of removal, death, resignation or inability, both of the President and Vice-President, declaring what officer shall then act as President; and such officer shall act accordingly, until the disability be removed, or a President shall be elected.

7. The President shall, at stated times, receive for his services a compensation, which shall neither be increased nor diminished during the period for which he shall have been elected; and he shall not receive within that period any other

emolument from the United States, or any of them.

8. Before he enter on the execution of his office, he shall

take the following oath or affirmation:

"I do solemnly swear (or affirm) that I will faithfully execute the office of President of the United States; and will, to the best of my ability, preserve, protect and defend the Con-

stitution of the United States."

SECTION II. 1. The President shall be commander-inchief of the army and navy of the United States, and of the militia of the several States, when called into the actual service of the United States. He may require the opinion, in writing, of the principal officer in each of the executive departments, upon any subject relating to the duties of their respective offices, and he shall have power to grant reprieves

and pardons for offenses against the United States, except in

cases of impeachment.

2. He shall have power, by and with the advice and consent of the Senate, to make treaties, provided two-thirds of the Senators present concur; and he shall nominate, and, by and with the advice and consent of the Senate, shall appoint embassadors, other public ministers and consuls, judges of the Supreme Court, and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law. But the Congress may, by law, vest the appointment of such inferior officers as they think proper in the President alone, in the courts of law, or in the heads of departments.

3. The President shall have power to fill all vacancies that may happen during the recess of the Senate, by granting commissions which shall expire at the end of their next

session.

Section III. 1. He shall, from time to time, give to the Congress information of the state of the Union, and recommend to their consideration such measures as he shall judge necessary and expedient. He may, on extraordinary occasions, convene both houses, or either of them; and in case of disagreement between them, with respect to the time of adjournment, he may adjourn them to such time as he shall think proper. He shall receive embassadors and other public ministers. He shall take care that the laws be faithfully executed; and shall commission all officers of the United States.

Section IV. 1. The President, Vice-President and all civil officers of the United States shall be removed from office on impeachment for, and conviction of, treason, bribery, or

other high crimes and misdemeanors.

ARTICLE III.

Section I. 1. The judicial power of the United States shall be vested in one Supreme Court and in such inferior courts as Congress may from time to time ordain and establish. The judges both of the Supreme and inferior courts shall hold their offices during good behavior; and shall, at stated times, receive for their services a compensation which shall not be diminished during their continuance of office.

Section II. 1. The judicial power shall extend to all cases in law and equity arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority; to all cases affecting embassadors, other public ministers and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more States, between a State and citizens of another

State, between citizens of different States, between citizens of the same State claiming lands under grants of different States, and between a State, or the citizens thereof, and foreign

states, citizens, or subjects.

2. In all cases affecting embassadors, other public ministers and consuls, and those in which a State shall be a party, the Supreme Court shall have original jurisdiction. In all the other cases mentioned, the Supreme Court shall have appellate jurisdiction, both as to law and fact, with such exceptions and under such regulations as the Congress shall make.

3. The trial of all crimes, except in cases of impeachment, shall be by jury, and such trial shall be held in the State where the said crime shall have been committed; but when not committed within any State, the trial shall be at such place or places as the Congress may by law have directed.

Section III. 1. Treason against the United States shall consist only in levying war against them or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

2. The Congress shall have power to declare the punishment of treason; but no attainder of treason shall work corruption of blood, or forfeiture, except during the life of the

person attainted.

ARTICLE IV.

Section I. 1. Full faith and credit shall be given in each State to the public acts, records and judicial proceedings of every other State; and the Congress may, by general laws, prescribe the manner in which such acts, records and proceedings shall be proved, and the effect thereof.

Section II. 1. The citizens of each State shall be entitled to all privileges and immunities of citizens in the several

States.

2. A person charged in any State with treason, felony, or other crime, who shall flee from justice, and be found in another State, shall, on demand of the executive authority of the State from which he fled, be delivered up to be removed to the State having jurisdiction of the crime.

3. No person held to service or labor in one State under the laws thereof, escaping into another, shall, in consequence of any laws or regulations therein, be discharged from such service or labor; but shall be delivered up on claim of the

party to whom such service or labor may be due.

Section III. 1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the jurisdiction of any other State, nor any

State be formed by the junction of two or more States or parts of States, without the consent of the legislatures of the

States concerned, as well as of the Congress.

2. The Congress shall have power to dispose of, and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this Constitution shall be so construed as to prejudice any claim of the United States, or of any particular State.

Section IV. 1. The United States shall guarantee to every State in this Union a republican form of government, and shall protect each of them against invasion; and, on application of the legislature, or of the executive (when the legislature cannot be convened), against domestic violence.

ARTICLE V.

1. The Congress, whenever two-thirds of both houses shall deem it necessary, shall propose amendments to this Constitution; or, on the application of the legislatures of two-thirds of the several States, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes as part of this Constitution, when ratified by the legislatures of three-fourths of the several States, or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the Congress; provided, that no amendment which may be made prior to the year one thousand eight hundred and eight shall in any manner affect the first and fourth clauses in the ninth section of the fifth article; and that no State, without its consent, shall be deprived of its equal suffrage in the Senate.

ARTICLE VI.

1. All debts contracted and engagements entered into before the adoption of this Constitution shall be as valid against the United States under this Constitution as under

the Confederation.

2. This Constitution, and the laws of the United States which shall be made in pursuance thereof, and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every State shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.

3. The senators and representatives before medioned and the members of the several State legislatures, and all executive and judicial officers, both of the United States and the several States, shall be bound by oath or affirmation to sup-

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port this Constitution; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ARTICLE VII.

1. The ratification of the convention of nine States shall be sufficient for the establishment of this Constitution between

the States so ratifying the same.

Done in convention by the unanimous consent of the States present, the seventeenth day of December, in the year of our Lord one thousand seven hundred and eighty, and of the Independence of the United States of America the twelfth. In witness whereof we have hereunto subscribed our names.

> George Washington, President, and Deputy from Virginia.

AMENDMENTS.

ARTICLE I.

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

ARTICLE II.

A well regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed.

ARTICLE III.

No soldier shall, in time of peace, be quartered in any house without the consent of the owner, nor in time of war, but in a manner to be prescribed by law.

ARTICLE IV.

The right of the people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures, shall not be violated; and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V.

No person shall be held to answer for a capital or other-185

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wise infamous crime, unless on a presentment or indictment of a grand jury, except in cases arising in the land or naval forces, or in the militia, when in actual service in time of war or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb, nor shall be compelled, in any criminal case, to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

ARTICLE VI.

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law; and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.

ARTICLE VII.

In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved; and no fact tried by a jury shall be otherwise reexamined, in any court of the United States, than according to the rules of the common law.

ARTICLE VIII.

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishment inflicted.

ARTICLE IX.

The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.

ACTICLE X.

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

[The preceding ten amendatory articles were proposed to the legislatures of the States by the first Congress, September 25, 1789, and notification of ratification received from all the States except Connecticut, Georgia and Massachusetts.]

ARTICLE XI.

The judicial power of the United States shall not be con-

strued to extend to any suit in law or equity commenced or prosecuted against one of the United States by citizens or subjects of any foreign state.

[Proposed by the Third Congress, and Congress notified of its adoption January 8, 1798.]

ARTICLE XII.

The electors shall meet in their respective States, and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same State with themselves. They shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President; and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President; and of the number of votes for each; which lists they shall sign and certify, and transmit sealed to the seat of government of the United States, directed to the President of the Senate. The President of the Senate shall, in the presence of the Senate and House of Representatives, open the certificates, and the votes shall then be counted. The person having the greatest number of votes for President shall be the President, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But, in choosing the President, the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President.

2. The person having the greatest number of votes as Vice-President shall be the Vice-President, if such number be a majority of the whole number of electors appointed, and if no person have a majority, then from the two highest numbers on the list the Senate shall choose the Vice-President. A quorum for the purpose shall consist of two-thirds of the whole, number of senators, and a majority of the whole number shall

be necessary to a choice.

3. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States. 187

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[Proposed by the Eighth Congress, and declared adopted September 25, 1804, by proclamation of the Secretary of State.]

ARTICLE XIII.

1. Neither slavery nor involuntary servitude, except as a punishment for crime, whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

2. Congress shall have power to enforce this article by

appropriate legislation.

[Proposed by the Thirty-eighth Congress, and declared adopted December 18, 1865, by proclamation of the Secretary of State.]

ARTICLE XIV.

Section I. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor shall any State deprive any person of life, liberty, or property, without due process of law, nor deny to any person within its

jurisdiction the equal protection of the laws.

Section II. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, representatives in Congress, the executive and judicial officers of a State, or the members of the legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section III. No person shall be a senator or representative in Congress, or elector of President and Vice-President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies there of; but Congress may, by a vote of two-thirds of each house,

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remove such disability

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States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

SECTION V. The Congress shall have power to enforce, by

appropriate legislation, the provisions of this article.

[Proposed by the Thirty-ninth Congress and declared adopted by concurrent resolution of Congress, July 21, 1868.]

ARTICLE XV.

SECTION I. The right of citizens of the United States to vote shall not be denied or abridged by the United States, or any State, on account of race, color or previous condition of servitude.

SECTION II. The Congress shall have power to enforce

this article by appropriate legislation.

[Proposed by the Fortieth Congress, and declared adopted by proclamation of the Secretary of State, March 30, 1870.]



Workingmen Easily Gulled.

Who fought for King George in 1776? Working people. What interest did they have inbeing ruled by him? None. Why, then, did they risk their lives for him? Because he hired them.

Where did the king get the money to pay them? By tax-

ing them.

Then they really paid themselves for fighting? Certainly. In every war ever fought the working people paid the expenses.

"What constitutes a state? Men who their duties know,
But know their rights, and, knowing,
Dare maintain." —Jones.

GALVESTON SEA WALL.

The Galveston sea wall, designed to protect the city from the waters of the Gulf of Mexico and prevent another disaster like that of Sept. 8, 1900, was completed July 29, 1904. It is 17,593 feet long, 16 feet high, 16 feet wide at the base and 5 feet at the top. It is built of concrete and cost \$1,198,318.

LACKSTONE defines law as the rules of human action or conduct, but what is commonly understood by the term is the civil or municipal regulations of a nation as applied to a particular country. The forms of law which govern civil contracts and business intercourse are distinguished as statute and common. Statute law is the written law of the land, as enacted by State or national legislative bodies. The common law is grounded on the general customs of England, and includes the law of nature, the law of God, the principles and maxims of the law and the decisions of the superior courts. It overrides both the canon and the civil law where they go beyond or are inconsistent with it.

To the man involved in litigation the best advice is to go to the best lawyer he can find. But an ounce of prevention is worth a pound of cure, and the purpose of the following pages is to furnish the ounce of prevention. Knowledge is power in nothing so much as in business law, especially since the law pre-

sumes that no man is ignorant of the law.

Business Law in Brief.

Ignorance of the law excuses no one.

It is a fraud to conceal a fraud.

The law compels no one to do impossibilities.

An agreement without consideration is void.

Signatures made with a lead pencil are good in law.

A receipt for money paid is not legally conclusive.

The act of one partner binds all the others.

The seal of a party to a written contract imports consideration.

A contract made with a minor cannot be enforced against him. A note made by a minor is voidable.

A contract made with a lunatic is void. A contract made on a Sunday is void.

Principals are liable for the acts of their agents. Agents are liable to their principals for errors.

Each individual in a partnership is liable for the whole amount of the debts of the firm.

A note which does not state on its face that it bears interest, will bear interest only after due.

A lease of land for a longer term than one year is void unless in writing.

An indorser of a note is exempt from liability if notice of its dishonor is not mailed or served within twenty-four hours of its non-payment.

In case of the death of the principal maker of a note the holder

is not required to notify a surety that the note is not paid, before the settlement of the maker's estate.

Notes obtained by fraud, or made by an intoxicated person,

are not collectible.

If no time of payment is specified in a note it is payable on demand.

An indorser can avoid liability by writing "without recourse" beneath his signature.

A check indorsed by the payee is evidence of payment in the

drawer's hands.

An outlawed debt is revived should the debtor make a partial

payment.

Want of consideration—a common defense interposed to the payment of negotiable paper—is a good defense between the original parties to the paper; but after it has been transferred before maturity to an innocent holder for value it is not a defense.

Negotiable paper, payable to bearer or indorsed in blank, which has been stolen or lost, cannot be collected by the thief or finder, but a holder who receives it in good faith before maturity, for value, can hold it against the owner's claims at the time it was lost.

Sometimes the holder of paper has the right to demand payment before maturity; for instance, when a draft has been protested for non-acceptance and the proper notices served, the holder may at once proceed against the drawer and indorsers.

If a note or draft is to be paid in the State where it is made, the contract will be governed by the laws of that State. When negotiable paper is payable in a State other than that in which it is made, the laws of that State will govern it. Marriage contracts, if valid where they are made, are valid everywhere. Contracts relating to personal property are governed by the laws of the place where made, except those relating to real estate, which are governed by the laws of the place where the land is situated.

If negotiable paper, pledged to a bank as security for the payment of a loan or debt, falls due, and the bank fails to demand payment and have it protested when dishonored, the bank is liable to the owner for the full amount of the paper.

Agreements and Contracts.

A contract or agreement is where a promise is made on one side and assented to on the other, or where two or more persons enter into engagement with each other by a promise on either side. In a written contract assent is proved by the signature or mark. In verbal agreements it may be given by a word

or a nod, by shaking of hands, or by a sign. The old saw, "Silence gives consent," is often upheld in law.

The conditions of a contract, as applying to individuals, are: 1. Age; 2. Rationality; and 3, as to Corporations, the possession of general or special statutory powers.

Persons under age are incompetent to make contracts, except under certain limitations. Generally such persons are incapa-

ble of making binding contracts.

As to rationality, the general principle of law is that all persons not rendered incompetent by personal disability, or by considerations of public policy, are capable of making a contract.

Corporations have powers to make contracts strictly within the limits prescribed by their charters, or by special or general statute.

The first step toward a contract is the proposition or offer, which may be withdrawn at any time before it is agreed to. When the proposition is verbal, and no time is specified, it is not binding unless accepted at once. To give one the option or refusal of property at a specified price, is simply to give him a certain time to make up his mind whether he will buy the property or not. To make the option binding he must accept within the time named. The party giving the option has the right to withdraw it, and sell the property to another, at any time previous to its acceptance, if the offer is gratuitous, and there is no consideration to support it.

If a letter of acceptance is mailed, and immediately after a letter withdrawing the offer is received, the contract is binding. An acceptance takes effect from the time it is mailed, not from the time it is received; it must, however, be in accordance with the original proposition, for any new matter introduced would constitute a new offer. When the offer is accepted, either ver-

bally or in writing, it is an express assent, and is binding.

A contract made under a mistake of law is not void. Everybody is presumed to know the law. This, however, applies only

tc contracts permitted by law and clear of fraud.

A refusal of an offer cannot be retracted without the consent of the second party. Once a proposition is refused, the matter is ended. And no one has the right to accept an offer except

the person to whom it was made.

The consideration is the reason or thing for which the parties bind themselves in the contract, and it is either a benefit to the promisor or an injury to the other party. Considerations are technically divided into valuable and good, and it sometimes happens that the consideration need not be expressed, but is implied. A valuable consideration is either money or property or service to be given, or some injury to be endured. A promise to marry is considered a valuable consideration. A good con-

sideration means that the contract is entered into because of consanguinity or affection, which will support the contract when executed, but will not support an action to enforce an executory contract. Whether a consideration is sufficient or not is tested by its being a benefit to the promisor or an injury to the other party. If it has a legal value, it makes no difference how small that value may be. The promisor need not always be benefited, as, for instance, the indorser of a note, who is liable although he gets no benefit. But if a person promise to do something him self for which no consideration is to be received, there is no cause of action for breach of the contract.

There are several causes which void contracts, first among which is fraud. Fraud is defined to be "every kind of artifice employed by one person for the purpose of willfully deceiving another to his injury." No fraudulent contract will stand in law or in equity. The party upon whom the fraud has been practiced must void the contract as soon as he discovers the fraud, for if he goes on after having knowledge of the fraud he cannot afterwards avoid it. But the one who perpetrates the fraud cannot plead that ground for voiding it. Contracts in restraint of trade are void, as also are contracts in opposition to public policy, impeding the course of justice, in restraint of marriage contrary to the insoivent acts, or for immoral purposes. Any violation of the essential requisites of a contract, or the omission of an essential requisite, will void it.

DON'T enter into an agreement on a Sunday unless it is rational.

fied on a week day.

DON'T make a contract with a person of unsound mind of under the influence of liquor, or otherwise under restraint of liberty, mind or body. Use caution in making contracts with an illiterate, blind or deaf and dumb person, and see to it that witnesses are present.

DON'T put a forced construction on a contract—the intent of

the parties is a contract.

DON'T suppose that you can withdraw a proposition made in writing and sent by mail after the party to whom it was made has mailed an unconditional acceptance.

DON'T suppose that a conditional acceptance of a proposition

is binding on the party making the proposition.

DON'T forget that the courts will construe a contract ac-

cording to the law prevailing where it was made.

DON'T forget that the law says, "no consideration, no contract," and that the courts will not enforce a contract which is too severe in its provisions.

DON'T sign an agreement unless you have carefully weighed

its provisions, which should all be fixed and certain.

Notes and Negotiable Paper.

The superstructure of business as it exists to-day rests on the broad foundation of confidence—the result of what may be called the evolution of commerce, and the principal stages in this evolution are an interesting study. First there was only barter in kind, as still practiced among savages—for example, the exchange of a bushel of corn for a handful of arrow-heads. Then came the introduction of money as a medium of exchange; and to-day we have the substitution of negotiable paper as documentary evidence of indebtedness, including promissory notes, due bills, drafts, checks, certificates of deposit, bills of exchange, bank bills, treasury notes (greenbacks), and all other evidences of debt, the ownership of which may be transferred from one person to another.

The mere acknowledgment of debt is not sufficient to make negotiable paper; the *promise* of payment or an *order* on some one to pay is indispensable. This promise must be for money only. The amount must be exactly specified. The title must be transferable. This feature must be visible on the face of the paper by the use of such words as "bearer" or "order." In some of the States peculiar phrases are ordered by statute, as "Payable without defalcation or discount," or "Payable at —," naming

the bank or office.

A written agreement, signed by one person, to pay another, at a fixed time, a stated sum of money, is a promissory note. It becomes negotiable by being made payable to an order on some one or to bearer. As it is a contract, a consideration is one of its essential elements. Yet, although it be void as between the two first parties, being negotiable and coming into the hands of another person who gives value for it, not knowing of its defect,

it has full force and may be collected.

The date is of great consequence. In computing time, the day of date is not counted, but it is the fixed point beginning the time at the end of which payment must be made. Omission of the date does not destroy a note, but the holder must prove to the time of its making. The promise to pay must be precise as to time which the note is to run. It must be at a fixed period, or conditional upon the occurrence of something certain to happen, as "at sight," "five days after sight," "on demand," "three months after date," "ten days after the death of John Doe." The time not being specified, the note is considered "payable on demand."

The maker, the person who promises and whose signature the note bears, must be competent. Insane people and idiots are naturally, and aliens, minors and married women may be legally, incompetent. The maker is responsible and binds himself to pay the amount stated on the note at its maturity. He need not

pay it before it becomes due, but should he do so and neglect to cancel the note, he would be again responsible if any other person, without knowledge of such payment, acquired it for value before maturity. Even a receipt for payment from the first payee would not stand good against the subsequent holder.

The payee is the person in whose favor the note is drawnthe legal holder, the person to whom the money must be paid. When a note is made payable simply to bearer, without naming

the payce, any one holding the note honestly may collect.

A subsequent party, one who comes into possession of the note after the original holder, has a better claim than the first one, for the reason that between the maker and the first payee there may have been, in the contract, some understanding or condition militating against the payment when it would become due, but the third person, knowing nothing of this, gives his value and receives the note. The law will always sustain the subsequent party.

The indorser is held responsible if the maker fails to pay when the note arrives at maturity. A note payable to order must be indorsed by a holder upon passing it to another, and, as value has been given each time, the last holder will look to his next

preceding one and to all the others.

A note, being on deposit as collateral security, becoming due,

the temporary holder is the payee and must collect.

An indorsement is a writing across the back of the note, which makes the writer responsible for the amount of the note. There are various forms of indorsement.

I. In blank, the indorser simply writing his name on the back of the note.

2. General, or in full, the indorser writing above his signature "Pay ——— " or "Pay ——— or order."

3. Qualified, the words "without recourse" being used after

the name of the payee in the indorsement.

4. Conditional, a condition being stated, as: "Pay —, unless payment forbidden before maturity."

indorsement are practically the same; each entitles the holder of the note to the money, and to look to the indorser for payment if the maker of the note defaults. It has even been held that in a general indorsement the holder had the right to fill in the words "or order" if he saw fit. The qualified indorsement releases the indorser from any liability in case the maker of the note defaults. The conditional and restrictive indorsement are used only in special cases. Each indorser is severally and collectively liable for the whole amount of the note indorsed if it is

dishonored, provided it is duly protested and notice given to each. The indorser looks to the man who indorsed it before him, and so back to the original maker of the note. As soon as a note is protested, it is vitally necessary that notice should be sent to each person interested at once.

TO BE ON THE SAFE SIDE, it is well to see to it that

any note offered for negotiation—

Is dated correctly;

Specifies the amount of money to be paid; Names the person to whom it is to be paid;

Includes the words "or order" after the name of the payee, if it is desired to make the note negotiable;

Appoints a place where the payment is to be made; States that the note is made "for value received;"

And is signed by the maker or his duly authorized representa-

In some States phrases are required in the body of the note, such as, "witnout defalcation or discount;" but, as a general thing, that fact is understood without the statement.

Partnership.

The general rule is that every person of sound mind, and not otherwise restrained by law, may enter into a contract of partnership.

There are several kinds of partners:

1. Ostensible partners, or those whose names are made public as partners, and who in reality are such, and who take all the benefits and risks.

2. Nominal partners, or those who appear before the public

as partners, but who have no real interest in the business.

3. Dormant, or silent partners, or those whose names are not known or do not appear as partners, but who, nevertheless, have an interest in the business.

4. Special, or limited partners, or those who are interested in the business only to the amount of the capital they have invested

in it.

5. General partners, who manage the business, while the capital, either in whole or in part, is supplied by a special partner or partners. They are liable for all the debts and contracts of the firm.

A nominal partner renders himself liable for all the debts and contracts of the firm.

A dormant partner, if it becomes known that he has an interest, whether creditors trusted the firm on his account or not, becomes liable equally with the other partners.

The regulations concerning special or limited partnerships, in

any particular State where recognized, are to be found in the statutes of such State; and strict compliance with the statutes is necessary in order to avoid incurring the responsibilities attaching to the position of general partner.

A person who lends his name as a partner, or who suffers his name to continue in the firm after he has actually ceased to be a partner thereof, is still responsible to third persons as a partner.

A partner may buy and sell partnership effects; make contracts in reference to the business of the firm; pay and receive money; draw, and indorse, and accept bills and notes; and all acts of such a nature, even though they be upon his own private account, will bind the other partners, if connected with matters apparently having reference to the business of the firm, and transacted with other parties ignorant of the fact that such dealings are for the particular partner's private account. The representation or misrepresentation of any fact made in any partnership transaction by one partner, or the commission of any fraud in such transaction, will bind the entire firm, even though the other partners may have no connection with, or knowledge of the same.

If a partner sign his individual name to negotiable paper, all the partners are bound thereby, if such paper appear on its face to be on partnership account. If negotiable paper of a firm be given by one partner on his private account, and in the course of its circulation pass into the hands of a bona fide holder for value, without notice or knowledge of the fact attending its creation, the partnership is bound thereby.

One partner cannot bind the firm by deed, though he may by deed execute an ordinary release of a debt due the partnership.

If no time be fixed in articles of copartnership for the commencement thereof, it is presumed to commence from the date and execution of the articles. If no precise period is mentioned for continuance, a partner may withdraw at any time, and dissolve such partnership at his pleasure; and even if a definite period be agreed upon, a partner may, by giving notice, dissolve the partnership as to all capacity of the firm to bind him by contracts thereafter made. The withdrawing partner subjects himself, however, to a claim for damages by reason of his breach of the covenant.

The death of a partner dissolves the partnership, unless there be an express stipulation that, in such an event, the representatives of the deceased partner may continue the business in connection with the survivors, for the benefit of the widow and children.

A partnership is dissolved by operation of law; by a voluntary and bona fide assignment by any partner of his interest therein;

by the bankruptcy or death of any of the partners; or by a war

between the countries of which the partners are subjects.

Immediately after a dissolution, notice of the same should be published in the papers, and a special notice sent to every person who has had dealings with the firm. If these precautions be not taken, each partner will still continue liable for the acts of the others to all persons who have had no notice of such dissolution.

DON'T enter into a partnership without carefully drawn articles, and don't sign the articles until the partnership funds

are on deposit.

DON'T forget that a partner may be called upon to make good partnership losses with his individual property, and that each partner may be held for the acts of the other partners as well as for his own.

DON'T enter a firm already established unless you are willing to become responsible for its debts.

DON'T do anything out of the usual run of business without

the consent of your partners.

DON'T mix private matters with partnership affairs, and don't continue in a partnership where trust and confidence are lacking.

DON'T continue a partnership after expiration of articles,

and do not make any change without due public notice.

DON'T dissolve a partnership without due public notice or without designating a member to settle all matters outstanding.

Agency and Attorney.

By agency is meant the substitution of one person by and for another, the former to transact business for the latter. An agency may be established by *implication*—an express agreement with a person that he is to become the agent of another not being necessary—or *verbally*, or by *writing*. A verbal creation of agency suffices to authorize the agent to make a contract even in cases where such contract must be in writing.

Agency is of three kinds: special, general and professional. A special agency is an authority exercised for a special purpose. If a special agent exceed the limits of his authority, his principal

is not bound by his acts.

A general agency authorizes the transaction of all business of a particular kind, or growing out of a particular employment. The principal will be bound by the acts of a general agent, though the latter act contrary to private instructions, provided he keep, at the same time, within the general limits of his authority.

Professional agents are those licensed by the proper authority to transact certain kinds of business for a compensation. The

following are among this class of agents: 1. Attorneys. 2. Brokers. 3. Factors. 4. Auctioneers. 5. Masters of Ships.

In regard to the subject of an agency, the general rule is, that whatever a man may do in his own right he may also transact through another. Things of a personal nature, implying personal confidence on the part of the person possessing them, cannot be delegated.

Infants, married women, lunatics, idiots, aliens, belligerents, and persons incapable of making legal contracts, cannot act as principals in the appointment of agents. Infants and married

women may, however, become principals in certain cases.

Agency may be terminated in two ways: (1) by the act of the principal or agent; (2) by operation of law. In the latter case, the termination of the agency is effected by lapse of time, by completion of the subject-matter of the agency, by the extinction of the subject-matter, or by the insanity, bankruptcy or death of either party.

DON'T do through another what would be illegal for you to

do yourself.

DON'T lose any time in repudiating illegal acts of your agent. DON'T make an illegal act of your agent's your own by ac-

cepting the benefit thereof.

DON'T transact business through an agent unless he can show that he stands in his principal's stead in the matter in hand.

DON'T, as agent, appoint sub-agents without the consent of your principal.

DON'T go beyond your authority in an agency unless you

are willing to become personally responsible.

DON'T accept an agency, or act as an attorney in fact, in complicated matters unless your powers are clearly defined in writing.

Landlord and Tenant.

Leases for one year or less need no written agreement. Leases for more than a year must be in writing; if for life, signed, sealed, and witnessed in the same manner as any other important document.

Leases for over three years must be recorded. No particular

form is necessary.

If no agreement in writing for more than a year can be produced, the tenant holds the property from year to year at the will of the landlord. If there is no agreement as to time, the tenant as a rule holds from year to year.

A tenancy at will may be terminated by giving the tenant one month's notice in writing, requiring him to remove from the

premises occupied.

A tenant is not responsible for taxes, unless it is so stated in the lease.

The tenant may underlet as much of the property as he desires, unless it is expressly forbidden in the lease. Tenants at

will cannot underlet.

A married woman cannot lease her property under the common law, but this prohibition is removed by statute in most of the States. A husband cannot make a lease which will bind his

wife's property after his death.

A lease made by a minor is not binding after the minor has attained his majority. It binds the lessee, however, unless the minor should release him. Should the minor receive rent after attaining his majority, the lease will be thereby ratified. A lease given by a guardian will not extend beyond the majority of the ward.

A new lease renders void a former lease.

In case there are no writings, the tenancy begins from the day possession is taken; where there are writings and the time of commencement is not stated, the tenancy will be held to commence from the date of said writings.

Leases on mortgaged property, whereon the mortgage was given prior to the lease, terminate when the mortgage is fore-

closed

Where a tenant assigns his lease, even with the landlord's consent, he will remain liable for the rent unless his lease is sur-

rendered or cancelled.

There are many special features of the law of landlord and tenant in relation to agricultural tenancy. Generally an outgoing tenant cannot sell or take away the manure. A tenant whose estate has terminated by an uncertain event which he could neither foresee nor control is entitled to the annual crop which he sowed while his estate continued, by the law of emblements. He may also, in certain cases, take the emblements or annual profits of the land after his tenancy has ended, and unless restricted by some stipulation to the contrary, may remove such fixtures as he has erected during his occupation for convenience, profit or comfort; for, in general, what a tenant has added he may remove, if he can do so without injury to the premises, unless he has actually built it in so as to make it an integral part of what was there originally.

The following are immovable fixtures: Agricultural erections, fold-yard walls, cart house, barns fixed in the ground, beast house, carpenter shop, fuel house, pigeon house, pineries substantially fixed, wagon house, box borders not belonging to a gardener by trade, flowers, trees, hedges, ale-house bar, dressers, partitions, locks and keys, benches affixed to the house,

statue erected as an ornament to grounds, sun dial, chimney piece not ornamental, closets affixed to the house, conduits, conservatory, substantially affixed, doors, fruit trees if a tenant be not a nurseryman by trade, glass windows, hearths, millstones, looms substantially affixed to the floor of a factory, threshing machines fixed by bolts and screws to posts let into the ground.

DON'T occupy premises until a written lease is in your possession, and don't depend on promises of a landlord unless they

are part of such lease.

DON'T accept a married woman as tenant unless the law of

the State permit her to make an executory contract.

DON'T think that you can legally eject sub-tenants unless you have given them notice of the tenant's forfeiture of his lease.

DON'T make such improvements in premises occupied by you as the law would regard as immovable fixtures, unless you are willing to turn them over to the landlord when your lease expires. A building erected on foundations sunk into the ground would become part of the realty and thus belong to the landlord.

DON'T think, however, that you have no right to remove

trade fixtures erected by you.

DON'T accept less than thirty days' notice when you rent by

the month.

DON'T forget that where premises are let for illegal use the law will not aid you in collecting arrears for rent.

Law Relating to Farms, Etc.

In a deed to agricultural property the boundaries should be clearly determined. The question, What does the farmer get? is answered by these boundaries, and the deed to a farm always includes the dwelling houses, barns and other improvements thereon belonging to the grantor, even though these are not mentioned. It also conveys all the fences standing on the farm, but all might not think it also included the fencing-stuff, posts, rails, etc., which had once been used in the fence, but had been taken down and piled up for future use again in the same place. But new fencing material, just bought, and never attached to the soil, would not pass. So piles of hop poles, stored away, if once used on the land, and intended to be again so used, have been considered a part of it, but loose boards or scaffold poles, merely laid across the beams of a barn and never fastened to it, would not be, and the seller of the farm might take them away. Standing trees, of course, also pass, as part of the land; so do trees blown down or cut down, and still left in the woods where they fell, but not if cut and corded up for sale; the wood has then become personal property.

If there be any manure in the barnyard or in the compost heap on the field, ready for immediate use the buyer ordinarily, in the absence of any contrary agreement, takes that also as belonging to the farm, though it might not be so if the owner had previously sold it to some other party, and had collected it together in a heap by itself, for such an act might be a technical severance from the soil, and so convert real into personal estate; and even a lessee of a farm could take away the manure made on the place while he was in occupation. Growing crops also pass by the deed of a farm unless they are expressly reserved, and when it is not intended to convey those it should be so stated in the deed itself; a mere oral agreement to that effect would not be, in most States, valid in law. Another mode is to stipulate that possession is not to be given until some future day, in which case the crops or manures may be removed before that time.

An adjoining road is, to its middle, owned by the farmer whose land is bound, unless there are reservations to the contrary in the deeds through which he derives title. But this ownership is subject to the right of the public to the use of the road.

If a tree grows so as to come over the land of a neighbor, the latter may cut away the parts which so come over, for he owns his land and all that is above or below it. If it be a fruit tree he may cut every branch or twig which comes over his land, but he cannot touch the fruit which falls to the land. The owner of the tree may enter peaceably upon the land of the neighbor and take up the branches and fruit.

Lien Laws.

Any one who, as contractor, sub-contractor or laborer, performs any work, or furnishes any materials, in pursuance of, or in conformity with, any agreement or contract with the owner, lessee, agent or one in possession of the property, toward the erection, altering, improving or repairing of any building, shall have a lien for the value of such labor or materials on the building or land on which it stands to the extent of the right, title and interest of the owner, lessee or person in possession at the time of the claimant's filing his notice with the clerk of the county court. Such lien is called a mechanic's lien.

The notice should be filed within thirty days after completion of the work or the furnishing of the materials, and should state the residence of the claimant, the amount claimed, from whom due, when due, and to whom due, the name of the person against whom claimed, the name of the owner, lessee or person in possession of the premises, with a brief description of the latter.

Liens cease in one year after the filing of the notice, unless an action is begun, or the lien is continued by an order of court.

The following classes of persons are generally entitled to lien:

1. Bailees, who may perform labor and services, on the thing bailed, at the request of the bailor.

2. Innkeepers, upon the baggage of guests they have accommodated.

3. Common carriers, upon goods carried, for the amount of their freight and disbursements.

4. Vendors, on the goods sold for payment of the price where no credit has been expressly promised or implied.

5. Agents, upon goods of their principals, for advancements for the benefit of the latter.

6. All persons are entitled to the right of lien who are compelled by law to receive property and bestow labor or expense on the same.

The right of lien may be waived: 1. By express contract. 2. By neglect. 3. By new agreement. 4. By allowing change of

possession. 5. By surrendering possession.

The manner of the enforcement of a lien, whether it be an innkeeper's, agent's, carrier's, factor's, etc., depends wholly upon the nature and character of the lien.

DON'T purchase real estate unless the records have been thoroughly searched for all liens known to the law, or until all notices of action against the same have been discharged.

DON'T think that you have no right to sell perishable property on which you have a lien. Your lien will attach to the proceeds.

DON'T foreclose a lien without proper notice.

DON'T make payments to a contractor before you have full

knowledge of all liens filed.

DON'T forget that liens take precedence according to priority, and that interest always runs on a judgment.

Deeds-Transfer of Property.

A deed is a writing by which lands, tenements or hereditaments are conveyed, sealed and delivered. It must be written or printed on parchment or paper; the parties must be competent to contract; there must be a proper object to grant; a sufficient consideration; an agreement properly declared; if desired, it must have been read to the party executing it; it must be signed and sealed; attested by witnesses, in the absence of any statute regulation to the contrary; properly acknowledged before a competent officer; and recorded within the time and in the office prescribed by the State wherein executed.

The maker of a deed is the grantor; the party to whom it is delivered, the grantee. If the grantor have a wife, she must, in the absence of a statute to the contrary, sign and acknowledge the deed; otherwise, after the husband's death, she may claim

the use of one-third, during her life.

By a general warranty deed the grantor covenants to insure the lands against all persons whatsoever; by a special warranty deed he warrants only against himself and those claiming under him. In deeds made by executors, administrators or guardians there is generally no warranty. A quit-claim deed releases all the interest which the grantor has in the land, whatever it may be.

A deed of trust is given to a person called a trustee, to hold in fee simple, or otherwise, for the use of some other person who is

entitled to the proceeds, profits or use.

A deed may be made void by alterations made in it after its execution; by the disagreement of the parties whose concurrence

is necessary; or by the judgment of a competent tribunal.

Interlineations or erasures in a deed, made before signing, should be mentioned in a note, and witnessed in proper form. After the acknowledgment of a deed the parties have no right to make the slightest alteration. An alteration of a deed after execution, if made in favor of the grantee, vitiates the deed. If altered before delivery, such alteration destroys the deed as to the party altering it.

Abstracts of title are brief accounts of all the deeds upon which titles rest, and judgments and instruments affecting such

titles.

The evidences of title are usually conveyances, wills, orders or decrees of courts, judgments, judicial sales, sales by officers appointed by law, acts of the Legislature and of Con-

gress.

DON'T accept a deed unless all the following conditions are complied with: 1. It must be signed, sealed and witnessed. 2. Interlineations must be mentioned in the certificate of acknowledgment. 3. All the partners must join in a deed from a partnership. 4. A deed from a corporation should bear the corporate seal and be signed by officers designated in the resolution of the directors authorizing it. 5. A deed from a married woman should be joined in by the husband. 6. A deed from an executor should recite his power of sale. 7. The consideration must be expressed.

DON'T deed property to your wife direct. A deed to your

wife does not cut off obligations contracted previously.

DON'T pay consideration money on a conveyance of real estate until the record has been searched to the moment of passing title, and unless you know of your own knowledge that no judgments, mortgages or tax liens are outstanding against the property.

DON'T delay in having a deed or mortgage recorded.

DON'T attempt to give a better title than you have yourself.

A mortgage is a conveyance of property, either real or personal, to secure payment of a debt. When the debt is paid the mortgage becomes void and of no value. In real estate mortgages the person giving the mortgage retains possession of the property, receives all the debts and other profits, and pays all taxes and other expenses. The instrument must be acknowledged, like a deed, before a proper public officer, and recorded in the office of the county clerk or recorder, or whatever officer's duty it is to record such instruments. All mortgages must contain a redemption clause and must be signed and sealed. The time when the debt becomes due, to secure which the mortgage is given, must be plainly set forth and the property conveyed must be clearly described, located and scheduled.

Some mortgages contain a clause permitting the sale of the property without decree of court when a default is made in the

payment either of the principal sum or the interest.

A foreclosure is a statement that the property is forfeited and must be sold.

When a mortgage is assigned to another person, it must be for a valuable consideration; and the note or notes which it was given to secure must be given at the same time.

If the mortgaged property, when foreclosed and brought to sale, brings more money than is needed to satisfy the debt, interest and costs, the surplus must be paid to the mortgagor.

Satisfaction of mortgages upon real or personal property may

be either—

1. By an entry upon the margin of the record thereof, signed by the mortgagee or his attorney, assignee or personal representative, acknowledging the satisfaction of the mortgage, in the presence of the recording officer; or—

2. By a receipt indorsed upon the mortgage, signed by the mortgagee, his agent or attorney, which receipt may be entered

upon the margin of the record; or—

3. It may be discharged upon the record thereof whenever there is presented to the proper officer an instrument acknowledging the satisfaction of such mortgage, executed by the mortgagee, his duly authorized attorney in fact, assignee or personal representative, and acknowledged in the same manner as other instruments affecting real estate.

Chattel mortgages are mortgages on personal property. Most of the rules applicable to mortgages on real estate apply also to those on personal property, though in some States there are laws regulating personal mortgages. Any instrument will answer the purpose of a chattel mortgage which would answer as a bill of sale, with a clause attached providing for the avoidance of the mortgage when the debt is paid.

A chattel mortgage will not cover property subsequently ac-

quired by the mortgagor. Mortgages of personal property should contain a clause providing for the equity of redemption. A mortgagee may sell or transfer his mortgage to another party for a consideration, but such property cannot be seized or sold until the expiration of the period for which the mortgage was given. Mortgages given with intent to defraud creditors are void.

DON'T lose any time in having a mortgage properly

recorded.

DON'T pay installments on chattel mortgages unless the same are indorsed thereon.

DON'T lose sight of the fact that a chattel mortgage is a conditional bill of sale.

DON'T accept a chattel mortgage the term whereof is for

more than a year.

DON'T neglect to have a chattel mortgage signed, sealed and witnessed, and don't fail to see to it that the schedule contains every article embraced under it.

DON'T fail to see to it that goods or chattels mortgaged to

you are properly insured.

DON'T suppose that a chattel mortgage is valid when the

debt to be secured by it is not.

DON'T give a chattel mortgage payable on demand unless you are prepared to forfeit the chattels at any moment.

DON'T think that destruction by fire or otherwise of the

chattels mortgaged wipes out the debt.

DON'T forget that foreclosure in the case of a chattel mortgage is unnecessary except to cut off claims of other creditors.

Assignments.

An assignment is a transfer of property made in writing. In effect it is passing to another person all of one's title or interest in any sort of real or personal property, rights, actions or estates. However, some things are not assignable; an officer's pay or commission, a judge's salary, fishing claims, Government bounties, or claims arising out of frauds or torts. Personal trusts cannot be assigned, as a guardianship or the right of a master in his apprentice.

Unlike many other legal devices the holder of an assignment is not bound to show that a valuable consideration was given. The owner of a cause of action may give it away if he pleases, and in the positive absence of evidence to the contrary the court will presume that the assignment was for a sufficient con-

sideration.

Proof will be called for only when it appears that the assignment was a mere sham or fraudulent. No formality is required

by law in an assignment. Any instrument between the contracting parties which goes to show their intention to pass the property from one to another will be sufficient. It may be proved, for instance, by the payee of a note, that he indorsed (or delivered without indorsement) the note to the assignee, and this is sufficient evidence of assignment.

In every assignment of an instrument, even not negotiable, the assignee impliedly warrants the validity of the instrument and the obligation of the third party to pay it. He warrants that there is no legal defense against its collection arising out of his connection with the parties; that all parties were legally

able to contract, and that the amount is unpaid.

An assignment carries with it all the collateral securities and guaranties of the original debt, even though they are not men-

tioned in the instrument.

Where property is assigned for the benefit of creditors, its actual transfer to the assignee must be made immediately. When an assignment is made under the common law, the assignor may prefer certain creditors; but in a State where this sort of an assignment is governed by statute, no preference can be shown. An assignment for the benefit of creditors covers all of the assignor's property, wherever or whatever it may be, that is not exempt from execution.

When insured property is sold the insurance policy should be assigned. This can only be done with the consent of the in-

surer, and that consent must be at once obtained.

Correct schedules of the property assigned should accompany and be attached to every assignment.

Inns, Hotels and Boarding-houses.

An inn, or hotel, is a place of entertainment for travelers. If an innkeeper opens his house for travelers, it is an implied engagement to entertain all persons who travel that way, and upon this universal assumption an action will lie against him for damages if he, without good reason, refuses to admit a traveler.

Innkeepers are responsible for the safe custody of the goods of their guests, and can limit their liability only by an express agreement or special contract with their guests; but if goods are lost through negligence of the owner himself the innkeeper's liability ceases. An innkeeper may retain the goods of his guest until the amount of the guest's bill has been paid.

A boarding-house is not an inn, nor is a coffee-house or eating-room. A boarding-house keeper has no lien on the goods of a boarder except by special agreement, nor is he responsible for their safe custody. He is liable, however, for loss caused by the

negligence of his servants. An innkeeper is liable for loss without such negligence.

Bonds.

A written instrument, admitting an obligation on the part of the maker to pay a certain sum of money to another specified person at a fixed time, for a valuable consideration, is called a bond. The obligor is the one giving the bond; the beneficiary is called the obligee. This definition applies to all bonds, but generally these instruments are given to guarantee the performance or non-performance of certain acts by the obligor, which being done or left undone, as the case may be, the bond becomes void, but if the conditions are broken it remains in full force. As a rule, the bond is made out for a sum twice the amount of any debt which is apt to be incurred by the obligor under its conditions, the statement being set forth that the sum named is the penalty, as liquidated or settled damages, in the event of the failure of the obligor to carry out the conditions.

An act of Providence, whereby the accomplishment of a bond

is rendered impossible, relieves the obligor of all liability.

A bond for the payment of money differs from a promissory note only in having a seal.

Bills of Sale.

A bill of sale is a formal written conveyance of personal property. If the property is delivered when sold, or if part of the purchase money is paid, a written instrument is not necessary to make the conveyance, but it is convenient evidence of the transfer of title. But, to protect the interests of the purchaser against the creditors of the seller, the bill is not sufficient of itself; there should also be a delivery of the property. If an actual and continued change of possession does not accompany the sale it is void as against the creditors of the seller and subsequent purchasers and mortgagees in good faith, unless the buyer can show that his purchase was made in good faith, without intent to defraud, and that there was some good reason for leaving the property in the hands of the seller.

Guaranty

Is an assurance made by a second party that his principal will perform some specific act. For instance, A gives B a note, and C by indorsing the instrument guarantees to B that A will pay it at maturity. C is the guarantor. His liability is special, and if B renews the note when it becomes due he is no longer liable. A guaranty for collection is a very different thing from a guaranty of payment. The first warrants that the money is collect-

ble; the latter, that it will be paid at maturity. In the first case the party guaranteed must be able to prove that due diligence was employed in attempting to collect the money; in the second, no such proof is necessary. The only form necessary in guaranteeing a note is writing one's name across the back of it,—a process commonly called indorsing.

Corporations.

Several persons joining together for the accomplishment of any business or social purpose can legally organize themselves into a corporation, a form of partnership which combines the resources of all, and yet gives a limited pecuniary liability, amounting only to the amount of stock owned by each stockholder. In the States, the legislature of each Commonwealth enjoys the power of regulating the corporations, and in the Territories this power is, of course, vested in the General Government. The actual cost of organization amounts to something less than \$10, most of which is in fees to the Secretary of State. When the stock has been subscribed a meeting is called, and each shareholder casts a vote for every share which he owns or holds a proxy for, for each person who is to be elected director, or he may give one director as many votes as the number of shares he is voting, multiplied by the number of directors to be elected. amounts to, or distribute his votes as he chooses. Thus, if he owns ten shares of stock and there are six directors to be elected, he has sixty votes, which he can give, either ten for each director, or twenty for each of three, or sixty for one, or in any other way that he sees fit, so that his whole vote will not be more than sixty votes. These directors meet as soon after the election as possible and choose a president, vice-president, secretary and treasurer, whereupon the corporation is ready for business.

The law in all the States on the subject of incorporating companies is very similar, and the necessary forms are to be obtained

usually from the Secretary of State.

Wills and How to Make Them.

Every description of property, whether real or personal, may be given by will. In the case of persons dying owing debts, however, the law gives to the executors sufficient of the personal property of the deceased to pay off all existing indebtedness, irrespective of the terms of the will; and where the personal property is not sufficient for this purpose, real property may be so appropriated.

Property may be bequeathed by will to all persons, including

married women, infants, lunatics, idiots, etc.

Wills may be made by any person not disqualified by age or

mental incapacity. Generally speaking, a person must have attained the age of twenty-one years before he or she can make a valid will of lands, and the same age, in many States, is re-

quired for a will of solely personal property.

In New York males of eighteen and females of sixteen are competent to bequeath personal property. "Sound and disposing mind and memory" are always essential to the validity of any will. For this reason, idiots, lunatics, intoxicated persons (during intoxication), and persons of unsound or weak minds, are incompetent to make wills. A will procured by fraud is also invalid, although the testator be fully competent to make a valid will. All wills must be in writing, except those made by soldiers in active service during war, and by sailors while at sea. Such persons may make a verbal or nuncupative will, under certain restrictions, as to witnesses, etc. No particular form of words is required.

A valid will must be subscribed or signed by the testator, or some one for him, in his presence, and at his request. The signature must be affixed in the presence of each of the witnesses. In case the will be signed by some one for him, the testator must acknowledge the signature to be his own in presence of the witnesses. The testator must declare to each of the subscribing witnesses that the instrument is his "last will and testament." This is of the utmost importance, and is called the "publication." There must be at least two (three are required in some of the States) subscribing witnesses, who must act as such at the testator's request, or at the request of some one in his presence. The subscribing witnesses must not be beneficially interested in the provisions of the will. These witnesses must all sign the will in the presence of the testator, and (in New York and some of the other States) in the presence of each other.

A codicil is an appendix annexed to the will after its execution, whereby the testator makes some change in, or addition to, his former disposition, and must be signed, published and attested

in the same manner as the original will.

The revocation of a will may be express or implied. Express, by the execution of a new and later will, or by the intentional destruction of the old one, or by a formal written revocation, signed and witnessed in the same manner as the will itself. An implied revocation is wrought by the subsequent marriage of the testator and the birth of children, or by either.

DON'T leave anything uncertain in a will, and don't neglect

to declare it to be your last will and testament.

DON'T make a will without two (better three) witnesses, none of whom must be interested in it. See that each witness writes his full name and address.

DON'T make a new will unless you destroy or revoke the old one, and don't add a codicil unless it is executed in the same way as the original will.

DON'T neglect to make a new will if you mortgage or sell

property devised or bequeathed in a prior one.

DON'T make a will which does not provide for children that may be born.

DON'T will property to a corporation whose charter does not

permit it to take by devise or bequest.

DON'T fail to say "bequeath" for personal and "devise" for real property.

Heirship to Property Not Bequeathed.

In England, where the policy is to keep landed estates undivided, the law of primogeniture prevails, giving to the eldest son and his descendants superior rights to the property. In case of default, the second son and his descendants become the heirs, and

so on. If there be only daughters, they inherit equally.

In the United States the property would be divided among the heirs as follows: (1.) To the children. These, if of equal degree, receive the property in equal shares. If of unequal degree, the more remote descendants take the share that would have belonged to their parent, if living. Thus: A, B and C are children of the testator, and of these B and C are living and A is dead, at the testator's death. The estate, after paying all debts, will be divided into three equal parts, the descendants of A, together, receiving one-third, and B and C each another third; but in case A left no descendants, then B and C each will be awarded one half of the property. (2.) If there are no descendants the parents of the testator would receive the estate, the father being sometimes preferred to the mother. (3.) If parents not living, the brothers and sisters of the testator would take the property, sharing equally. If one or more of the brothers or sisters had died, their children would receive the share that would have descended to their parent. (4.) Grandparents would be the next claimants, after which (5.) uncles and aunts, and after them (6.) their children, and so on. In case no heirs are found, the property inures to the State.

The above principles are stated as generally recognized in the laws of the several States. As these laws, however, vary, full information can only be obtained from the statutes of the several

States.

Legacies and the Duties of Executors and Administrators.

A legacy is a gift or bequest of personal property by will or testament. Legacies are of three kinds: General, specific and demonstrative.

LEGAL ADVICE.

A general legacy does not amount to a bequest of any particular portion of, or article belonging to, the personal estate of the testator, as distinguished from all others of the same kind; as a bequest of a sum of money, or a horse.

A specific legacy is a bequest of property specifically designated, so as to be definitely distinguished from the rest of the testator's estate; as, a bequest of all the money contained in a

certain box, or the horse in the testator's stable.

A demonstrative legacy is a bequest of a certain amount of money to be paid out of a particular fund; as, a bequest of \$500 to be paid out of the proceeds of the sale of certain property.

An executor should first extinguish all the lawful debts of the testator, and for this purpose all the personal property may be applied, if necessary, even though some of it has been bequeathed in specific legacies. After the debts are paid, the specific legacies are next to be satisfied; then the demonstrative legacies; and lastly, the general legacies. If there be insufficient assets to satisfy any of the legacies in either of these three classes successively, those in the same class will be paid ratably and in proportion, and subsequent classes will fail entirely.

Residuary legatees take subject to all other legacies. A residuary legatee is one to whom is bequeathed "all the rest, residue

and remainder" of an estate.

Specific and general legacies are subject to ademption; thus, if the testator bequeath "the horse in his stable," and at the time of his death has no horse, the legacy fails entirely and is said to be "adeemed." Or, if the legacy bequeaths the furniture in a certain specified house, and the testator remove the furniture to

another house, the legacy is adeemed.

Legacies are vested, or contingent. A vested legacy is one where the legatee acquires an absolute present right to present or future enjoyment. A contingent legacy is one where the right of enjoyment depends upon some contingency; as, a gift to a child if he attains the age of twenty-one years. A cumulative legacy is one additional to a previous legacy contained in the same will.

In New York, and several other States, a legacy given to a subscribing witness of a will is void. An executor may be a legatee. It is also provided that "no person having a husband, wife, child, or parent, shall bequeath to a corporation more than one half of his personal estate after the payment of his debts."

Legacies are not required to be paid in less than one year from the time of the testator's death. This time is allowed to the executor to enable him to ascertain the nature and value of the property, the full liabilities of the testator and to collect the

assets.

LEGAL ADVICE.

A legacy to an infant should not be paid except under order of the court, and such order will be governed by the laws of the State.

DON'T become an executor or administrator unless you are willing and have time to attend to the duties, and don't enter upon a trust until you thoroughly understand your duties and powers.

DON'T mix trust and personal funds.

DON'T pay out a dollar of trust money without proper vouchers, and don't fail to keep accurate accounts.

DON'T liquidate any claim until you have the whole estate in

hand.

DON'T pay a bequest before the time fixed in the will without deducting interest.

DON'T give a promissory note as executor or administrator. DON'T execute a contested will, or compromise a claim due

an estate, without the advice and consent of the court.

DON'T incur any other expenses than those of the burial until the will is properly probated, but do not hesitate to sell perishable property.

The Right of Dower.

Dower is one-third part of the husband's estate, and in general cannot be destroyed by the mere act of the husband. Hence, in the sale of real estate by the husband, his wife must, with the husband, sign the conveyance to make the title complete to the purchaser. In the absence of such signature, the widow can claim full dower rights after the husband's death. Creditors, also, seize the property subject to such dowry rights.

The husband in his will sometimes gives his wife property in lieu of dowery. In this case she may, after his death, elect to take either such property or her dower; but she cannot take both. While the husband lives the wife's right of dower is only *inchoate*; it cannot be enforced. Should he sell the land to a stranger, she

has no right of action or remedy until his death.

In all cases the law of the State in which the land is situated governs it, and, as in the case of heirship, full information must be sought for in statute which is applicable.

Marriage and Divorce.

Marriage may be entered into by any two persons, with the following exceptions: Idiots, lunatics, persons of unsound mind, persons related by blood or affinity within certain degrees prohibited by law, infants under the age of consent, which varies in the different States, and all persons already married and not legally divorced.

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The violation of the marriage vow is cause for absolute divorce in all the States and Territories, excepting South Carolina and New Mexico, which have no divorce laws.

Physical inability is a cause in all the States except Cal., Conn., Dak., Ia., La., N. M., N. Y., S. C., Tex. and Vt. In most of these States it renders marriage voidable.

Willful desertion, one year, in Ark., Cal., Col., Dak., Fla., Ida., Kan., Ky., Mo., Mon., Nev., Utah, Wis., W. T. and Wyo. Willful desertion, two years, in Ala., Ariz., Ill., Ind., Ia., Mich., Miss., Neb., Pa. and Tenn.

Willful desertion, three years, in Conn., Del., Ga., Me., Md., Mass., Minn., N. H., N. J., O., Ore., Tex., Vt. and W. Va.
Willful desertion, five years, in Va. and R. I., though the court may in the latter

State decree a divorce for a shorter period.

Habitual drunkenness, in all the States and Territories, except Md., N. J., N. Y.,

N. C., Pa., S. C., Tex., Vt., Va. and W. Va.

"Imprisonment for felony" or "conviction of felony" in all the States and Territories (with limitations), except Dak., Fla., Me., Md., N. J., N. M., N. Y., N. C.,

"Cruel and abusive treatment," "Intolerable cruelty," "extreme cruelty," "repeated cruelty," or "inhuman treatment," in all the States and Territories except N. J., N. M., N. Y., N. C., S. C., Va. and W. Va.

Failure by the husband to provide: one year in Cal., Col., Dak., Nev. and Wyo.; two years in Ind. and Ida.; no time specified in Ariz., Ida., Mass., Mich., Me., Neb, R. I., Vt. and Wis.; willful neglect for three years in Del.

Fraud and fraudulent contract in Ariz. Conn. Go. Ida. Kon. Kin. O. De

Fraud and fraudulent contract in Ariz., Conn., Ga., Ida., Kan., Ky., O., Pa.

and W. T.

Absence without being heard from: three years in N. H.; seven years in Conn. and Vt.; separation five years, in Ky.; voluntary separation, five years, in Wis.

When reasonably presumed dead by the court, in R. I.

"Ungovernable temper," in Ky.; "habitual indulgence in violent and ungovernable temper," in Fla.; "cruel treatment, outrages or excesses as to render their living together insupportable "in Ark., Ky., La, Mo., Tenn. and Tex.; "indignities as render life burdensome," in Mo., Ore., Pa, Tenn., W. T. and Wyo.

In Ga. an absolute divorce is granted only after the concurrent verdict of two juries at different terms of the court. In N. V. absolute divorce is granted for but one

at different terms of the court. In N. Y. absolute divorce is granted for but one

cause, adultery.

All of the causes above enumerated are for absolute or full divorce, and collusion and connivance are especially barred, and

also condonation of violation of the marriage vow.

The courts of every State, and particularly of New York, are very jealous of their jurisdiction, and generally refuse to recognize as valid a divorce against one of the citizens of the State by the court of another State, unless both parties to the suit were subject at the same time to the jurisdiction of the court granting the divorce.

Previous Residence Required.—Dak., ninety days; Cal., Ind., Ida., Neb., Nev., N. M., Tex. and Wyoming, six months; Ala., Ariz., Ark., Col., Ill., Ia., Kan., Ky., Me., Miss., Minn., Mich., Mo., Mont., N. H., O., Ore., Pa., Utah, Vt. (both parties as husband and wife), W. Va., V. T. and Wis., one year; Fla., Md., N. C., R. I. and Tenn., two years; Conn. and Mass. (if, when married, both parties were residents; otherwise five years), three years.

Remarriage. - There are no restrictions upon remarriage by divorced persons in Conn., Ky., Ill. and Minn. Defendant must wait two years and obtain permission from the court in Mass. The decree of the court may restrain the guilty party from remarrying in Va. Parties cannot remarry until after two years, except by permission of the court, in Me. In N. Y. the plaintiff may remarry, but the defendant cannot do so during the plaintiff's lifetime, unless the decree be modified or proof that five years have elapsed, and that complainant has married again and defendant's conduct has been uniformly good. Any violation of this is punished as bigamy, even though the other party has been married. In Del., Pa. and Tenn., no wife or husband divorced for violation of the marriage vow can marry the particeps criminis during the life of the former husband or wife, nor in La. at any time; such marriage in La. renders the person divorced guilty of bigamy.

Rights of Married Women.

Any and all property which a woman owns at her marriage, together with the rents, issues and profits thereof, and the property that comes to her by descent, devise, bequest, gift or grant, or which she acquires by her trade, business labor, or services performed on her separate account, shall, notwithstanding her marriage, remain her sole and separate property, and may be used, collected and invested by her in her own name, and shali not be subject to the interference or control of her husband, or be liable for his debts, unless for such debts as may have been contracted for the support of herself or children by her as his agent.

A married woman may likewise bargain, sell, assign, transfer and convey such property, and enter into contracts regarding the same on her separate trade, labor or business with the like effect as if she were unmarried. Her husband, however, is not liable for such contracts, and they do not render him or his property in any way liable therefor. She may also sue and be sued in all matters having relation to her sole and separate

property in the same manner as if she were sole.

In the following cases a married woman's contract may be enforced against her and her separate estate: 1. When the contract is created in or respecting the carrying on of the trade or business of the wife. 2. When it relates to or is made for the benefit of her sole or separate estate. 3. When the intention to charge the separate estate is expressed in the contract creating the liability.

When a husband receives a principal sum of money belonging to his wife, the law presumes he receives it for her use, and he must account for it, or expend it on her account by her authority

or direction, or that she gave it to him as a gift.

If he receives interest or income and spends it with her knowledge and without objection, a gift will be presumed from

acquiescence.

Money received by a husband from his wife and expended by him, under her direction, on his land, in improving the home of the family, is a gift, and cannot be recovered by the wife, or reclaimed, or an account demanded.

An appropriation by a wife, herself, of her separate property to the use and benefit of her husband, in the absence of an agree-

ment to repay, or any circumstances from which such an agreement can be inferred, will not create the relation of debtor and creditor, nor render the husband liable to account.

Though no words of gift be spoken, a gift by a wife to her husband may be shown by the very nature of the transaction,

or appear from the attending circumstances.

A wife who causelessly deserts her husband is not entitled to the aid of a court of equity in getting possession of such chattels as she has contributed to the furnishing and adornment of her husband's house. Her legal title remains, and she could convey her interest to a third party by sale, and said party would have a good title, unless her husband should prove a gift.

Wife's property is not liable to a lien of a sub-contractor for materials furnished to the husband for the erection of a building thereon, where it is not shown that the wife was notified of the intention to furnish the materials, or a settlement made with the

contractor and given to the wife, her agent or trustee.

The common law of the United States has some curious provisions regarding the rights of married women, though in all the States there are statutory provisions essentially modifying this law. As it now stands the husband is responsible for necessaries supplied to the wife even should he not fail to supply them himself, and is held liable if he turn her from his house, or otherwise separates himself from her without good cause. He is not held liable if the wife deserts him, or if he turns her away for good cause. If she leaves him through good cause, then he is liable. If a man lives with a woman as his wife, and so represents her, even though this representation is made to one who knows she is not, he is liable the same way as if she were his wife.

Arbitration.

Arbitration is an investigation and determination of subjects of difference between persons involved in dispute, by unofficial

persons chosen by the parties in question.

The general rule is that any person capable of making a valid contract concerning the subject in dispute may be a party to an arbitration. Any matter which the parties may adjust by agreement, or which may be made the subject of a suit at law, may be determined by arbitration. Crimes cannot be made the subject matter of an arbitration. This matter is regulated by statute in the different States.

The Law of Finding.

The general rule is that the finder has a clear title against every one but the owner. The proprietor of a hotel or a shop

LEGAL ADVICE

has no right to demand property of others found on his premises. Such proprietor may make regulations in regard to lost property which will bind their employes, but they cannot bind the public. The finder has been held to stand in the place of the owner, so that he was permitted to prevail in an action against a person who found an article which the plaintiff had originally found, but subsequently lost. The police have no special rights in regard to articles lost, unless those rights are conferred by statute. Receivers of articles found are trustees for the owner or finder. They have no power in the absence of special statute to keep an article against the finder, any more than the finder has to retain an article against the owner.

Number of Miles by Water from New York to

Tramber of Miles by Water Holl New York to
Amsterdam 3,510 Kingston 1,640
Bermudas
Bombay 3,210
Boston
Buenos Ayres
Calcutta
Canton
Cape Horn 8,115 Panama 2,358
Cape of Good Hope 6,830 Pekin
Charleston
Columbia River 15,965 Quebec 1,400
Constantinople
Dublin
Gibraltar
Halifax
Hamburg 3,775 Valparaiso 9,750
Havana
Havre
Dimensions of the Oceans.
Area, Sq. Miles. Av. Depth. Area, Sq. Miles. Av. Depth.
Pacific 68,000,000 12,780 feet Antarctic 8,500,000 6,000 feet
Atlantic. 35,000,000 12,060 " Arctic 5,000,000 5,100 "
Indian 25,000,000 10,980 "
Inland Seas of the World.
Name. Area, Sq. Miles. Depth. Name. Area, Sq. Miles. Depth.
Caspian Sea176,000 250 ft. Lake Erie10,815 204 ft.
Sea of Aral 30,000 100 " Lake Ontario 6,300 336 "
Dead Sea 303 200 " Lake Nicaragua. 6,000 300 "
Lake Balkal 12,000 750 " Lake Titacaca 3,012 800 "
Lake Superior. 32,000 1,000 " Salt Lake 1,875 1,400 "
Lake Michigan. 22,400 1,000 " Lake Tchad 14,000 350 "
Lake Huron 21,000 1,000 " Lake Lodoga12,000 1,200 "
Lake Huron 21,000 1,000 Lake Lodoga12,000 1,200

PRINCIPAL POINTS OF CONSTITUTIONAL LAW.

Congress must meet at least once a year. One State cannot undo the acts of another.

Congress may admit as many new States as desired.

The Constitution guarantees every citizen a speedy trial by jury.

A State cannot exercise a power which is vested in Congress

alone.

One State must respect the laws and legal decisions of another.

Congress cannot pass a law to punish a crime already com-

mitted.

U. S. Senators are chosen by the legislatures of the States by joint ballot.

Bills for revenue can originate only in the House of Repre-

sentatives.

A person committing a felony in one State cannot find refuge in another.

The Constitution of the United States forbids excessive bail

or cruel punishment.

Treaties with foreign countries are made by the President and ratified by the Senate.

In the U. S. Senate Rhode Island or Nevada has an equal

voice with New York.

When Congress passes a bankruptcy law it annuls all the State laws on that subject.

Writing alone does not constitute treason against the United

States. There must be an overt act.

Congress cannot lay any disabilities on the children of a person convicted of crime or misdemeanor.

The Territories each send a delegate to Congress, who has

the right of debate, but not the right to vote.

The Vice-President, who ex-officio presides over the Senate, has no vote in that body except on a tie ballot.

An act of Congress cannot become a law over the President's veto except on a two-thirds vote of both houses.

An officer of the Government cannot accept title of nobility, order or honor without the permission of Congress.

Money lost in the mails cannot be recovered from the Government. Registering a letter does not insure its contents.

It is the House of Representatives that may impeach the President for any crime, and the Senate hears the accusation.

If the President holds a bill longer than ten days while Congress is still in session, it becomes a law without his signature.

Silver coin of denominations less than \$1 is not a legal tender

POINTS OF CONSTITUTIONAL LAW.

for more than \$5.00. Copper and nickel coin is not legal tender.

The term of a Congressman is two years, but a Congressman may be re-elected to as many successive terms as his constituents may wish.

Amendments to the Constitution require a two-thirds vote of each house of Congress and must be ratified by at least three-

fourths of the States.

When the militia is called out in the service of the General Government, they pass out of the control of the various States under the command of the President.

The President of the United States must be 35 years of age; a U. S. Senator, 30; a Congressman, 25. The President must have

been a resident of the United States fourteen years.

A grand jury is a secret tribunal, and may hear only one side of a case. It simply decides whether there is good reason to hold for trial. It consists of twenty-four men, twelve of whom may indict.

À naturalized citizen cannot become President or Vice-President of the United States. A male child born abroad of American parents has an equal chance to become President with one

born on American soil.

CURIOUS BY-PRODUCTS FROM COAL.—The Pittsburgh Dispatch mentionssome chemical developments from coal that are new. There are a good many products from coal that the majority of the people know nothing of. Their number will go into the thousands, and research into this particular branch of inorganic chemistry is bringing new and rich rewards to scientists each year. One of the hydrocarbons distinctly produced from coal tar is benzole. This is the base of magenta red and blue coloring matters and of the oil of bitter almonds. This oil formerly came entirely from the vegetable product from which it takes its name, but now it is, to a large extent, made from benzole, and a chemically pure product is secured. The vegetable oil of bitter almonds contains a certain amount of prussic acid, which is a poisonous substance. Toluene, or tolulo, is another product from coal tar, which is the base of a great many chemicals. Benzoic acid, which used to be made almost entirely from plants, is now readily made from toluene. Carbolic acid is another product of tolulo. The latter is a colorless fluid with a smell very much like crude petroleum, while carbolic acid and salicylic acid, two of its products, are far from being sweet-smelling compounds. Yet this same tolulo is the basis of a number of very fragrant products. Wintergreen oil, much purer than from the plant, and generally preferred by confectioners and others who use it, is one; oil of cinnamon, cinnamic acid, and oil of cloves are among the middle products which are in great demand. As yet the products of coal tar have not been made use of for medicines to any great extent, except as disinfectants, but, from experiments now going on, it is hoped to produce pure quinine from chinolene, one of the coaltar products, and scientists say that it is only a question of time when all alkaloids known, and probably others not now known, will be made from coal tar. It would take a good-sized book to even begin to give an idea of the commercial products alone of coal tar. Nearly eve

THE LAW OF COPYRIGHT.

- 1. A printed copy of the title (besides the two copies to be deposited after publication) of the book, map, chart, dramatic or musical composition, engraving, cut, print or photograph, or a description of the painting, drawing, chromo, statue, statuary or model or design for a work of the fine arts, for which copyright is desired, must be sent by mail or otherwise, prepaid, addressed "Librarian of Congress, Washington, D. C." This must be done before the publication of the book or other article. The applicant must state distinctly the name and residence of the claimant, and whether copyright is claimed as author, designer or proprietor. The printed title required may be a copy of the title page of such publications as have title pages. In other cases, the title must be printed expressly for copyright entry, with name of claimant of copyright. The style of type is immaterial, and the print of a typewriter will be accepted. But a separate title is required for each entry, and each title must be printed on paper as large as commercial note. The title of a periodical must include the date and number.
- 2. The legal fee for recording each copyright claim is 50 cents, and for a copy of this record (or certificate of copyright) an additional fee of 50 cents is required. Certificates covering more than one entry are not issued. In the case of publications which are the production of persons not citizens or residents of the United States, the fee for recording title is \$1 and 50 cents additional for a copy of the record. Certificates covering more than one entry in one certificate are not issued. Express orders, money orders and currency only taken for fees. No postage stamps received.
- 3. Not later than the day of publication in this country or abroad, two complete copies of the best edition of each book or other article must be delivered, or deposited in the mail within the United States, addressed "Librarian of Congress, Washington, D. C.," to perfect the copyright. The freight or postage must be prepaid, or the publications inclosed in parcels covered by printed penalty-labels, furnished by the Librarian, in which case they will come free by mail (not express), without limit of weight, according to rulings of the Postoffice Department. Books must be printed from type set in the United States or plates made therefrom; photographs from negatives made in the United States; chromes and lithographs from drawings on stone or transfers therefrom made in the United States. In the case of paintings, drawings, statuary, or models or designs for works of art, a photograph of the article is to be sent in lieu of the two copies. Without the deposit of copies required the copyright is void, and a penalty of \$25 is incurred. No copy is required to be deposited elsewhere. The law requires one copy of each new edition wherein any substantial changes are made to be deposited with the Librarlan of Congress.
- 4. No copyright is valid unless notice is given by inserting in every copy published, on the title page or the page following, if it be a book; or, if a map, chart, musical composition, print, cut, engraving, photograph, painting, drawing, chromo, statue, statuary or model design intended to be perfected as a work of the fine arts, by inscribing upon some portion thereof, or on the substances on which the same is mounted, the following words, viz.: "Entered according to act of Congress, in the year—, by—, in the office of the Librarian of Congress, at Washington," or, at the option of the person entering the copyright, the words: "Copyright, 19—, by——."

The law imposes a penalty of \$100 upon any person who has not obtained a copyright who shall insert the notice "Entered ac-

THE LAW OF COPYRIGHT.

cording to act of Congress," or "Copyright," etc., or words of the same import, in or upon any book or other article.

5. The copyright law secures to authors and their assigns the exclusive right to translate or to dramatize any of their works; no notice is required to enforce this right.

6. The original term of copyright runs for twenty-eight years. Within six months before the end of that time the author or designer, or his widow or children, may secure a renewal for the further term of fourteen years, making forty-two years in all.

- 7. The time within which any work entered for copyright may be issued from the press is not limited by any law or regulation, but depends upon the discretion of the proprietor. A copyright may be secured for a projected work as well as for a completed one. But the law provides for no caveat, or notice of interference only for actual entry of title ence-only for actual entry of title.
- 8. A copyright is assignable in law by any instrument of writing, but such assignment must be recorded in the office of the Librarian of Congress within sixty days from its date. The fee for this record and certificate is \$1, and for a certified copy of any record of assignment \$1.

9. A copy of the record (or duplicate certificate) of any copyright entry will be furnished, under seal, at the rate of 50 cents each.

- 10. In the case of books published in more than one volume, or of periodicals published in numbers, or of engravings, photographs or other articles published with variations, a copyright is to be entered for each volume or part of a book, or number of a periodical, or variety, as to style, title or inscription, of any other article. But a book published serially in a periodical, under the same general title, requires only one entry. To complete the copyright on such a work, two copies of each serial part, as well as of the complete work (if published separately), must be deposited.
- 11. To secure a copyright for a painting, statue, or model or design intended to be perfected as a work of the fine arts, so as to prevent infringement by copying, engraving, or vending such design, a definite description must accompany the application for copyright, and a photograph of the same, at least as large as "cabinet size," should be mailed to the Librarian of Congress within ten days from the completion of the work or design.
- 12. Copyrights cannot be granted upon trademarks, nor upon mere names of companies or articles, nor upon prints or labels intended to be used with any article of manufacture. If protection for such names or labels is desired, application must be made to the Patent Office.

THE LAW OF TRADEMARKS.

Any person, firm or corporation can obtain protection for any lawful trademark by complying with the following:

1. By causing to be recorded in the Patent Office the name, residence and place of business of persons desiring the trademark.

2. The class of merchandise and description of the same.

3. A description of the trademark itself with fac-similes.

4. The length of time that the said mark has already been

used.

THE LAW OF TRADEMARKS.

5. By payment of the required fee-\$6 for labels and \$25 for trademarks.

6. By complying with such regulations as may be prescribed

by the commissioner of patents.
7. A lawful trademark must consist of some arbitrary word (not the name of a person or place), indicating or not the use or nature of the thing to which it is applied; of some designation symbol, or of both said word and symbol.

HOW TO OBTAIN A PATENT.

Patents are issued in the name of the United States, and under Patents are issued in the name of the United States, and under the seal of the Patent Office, to any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof, not known or used by others in this country, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned; and by any person who, by his own industry, genius, efforts and expense has invented and produced any new and original design for a manufacture, bust, statue, alto-relievo, or bas-relief; any new and original design for and produced any new and original design for a manufacture, bust, statue, alto-relievo, or bas-relief; any new and original design for the printing of woolen, silk, cotton or other fabrics; any new and original impression, ornament, pattern, print or picture to be printed, painted, cast or otherwise placed on or worked into any article of manufacture; or any new, useful and original shape or configuration of any article of manufacture, the same not having been known or used by others before his invention or production thereof, or patented or described in any printed publication, upon payment of the fees required by law and other due proceedings had.

Every patent contains a grant to the patentee, his heirs or assigns, for the term of seventeen years, of the exclusive right to make, use and vend the invention or discovery throughout the United States and the Territories, referring to the specification for

the particulars thereof.

If it appears that the inventor, at the time of making his application, believed himself to be the first inventor or discoverer, a patent wlll not be refused on account of the invention or discovery, or any part thereof, having been known or used in any foreign country before his invention or discovery thereof; if it had not been before

patented or described in any printed publication.

Joint inventors are entitled to a joint patent; neither can claim one separately. Independent inventors of distinct and independent improvements in the same machine cannot obtain a joint patent for their separate inventions; nor does the fact that one furnishes the capital and another makes the invention entitle them to make application as joint inventors; but in such case they may become joint patentees.

The receipt of letters patent from a foreign government will not prevent the inventor from obtaining a patent in the United States, unless the invention shall have been introduced into public use in the United States more than two years prior to the application. But every patent granted for an invention which has been previously patented by the same inventor in a foreign country will be

HOW TO OBTAIN A PATENT.

so limited as to expire at the same time with the foreign patent, or, if there be more than one, at the same time with the one having the shortest unexpired term, but in no case will it be in force more than seventeen years.

APPLICATIONS .- Application for a patent must be made in writing to the Commissioner of Patents. The applicant must also file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same; and in case of a machine, he must explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions, and particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or dis-The specification and claim must be signed by the inventor and attested by two witnesses.

When the nature of the case admits of drawings, the applicant

must furnish one copy signed by the inventor or his attorney in fact, and attested by two witnesses, to be filed in the Patent Office. In all cases which admit of representation by model, the applicant, if required by the Commissioner, shall furnish a model of convenient size to exhibit advantageously the several parts of his in-

vention or discovery.

The applicant shall make oath that he verily believes himself to be the original and first inventor or discoverer of the art, machine, be the original and first inventor or discoverer of the art, machine, manufacture, composition or improvement for which he solicits a patent; that he does not know and does not believe that the same was ever before known or used, and shall state of what country he is a citizen. Such oath may be made before any person within the United States authorized by law to administer oaths, or, when the applicant resides in a foreign country, before any minister, charge d'affaires, consul or commercial agent, holding commission under the Government of the United States, or before any notary public of the foreign country in which the applicant may be.

On the filing of such application and the payment of the fees required by law, if, on such examination, it appears that the clalmant is justly entitled to a patent under the law, and that the same is sufficiently useful and important, the Commissioner will issue a patent therefor.

patent therefor.

ASSIGNMENTS .- Every patent or any interest therein shall be assignable in law by an instrument in writing; and the patentee or his assigns or legal representatives may, in like manner, grant and convey an exclusive right under his patent to the whole or any specified part of the United States.

REISSUES .- A reissue is granted to the original patentee, his legal representatives, or the assignees of the entire interest when, by reason of a defective or insufficient specification, or by reason of the patentee claiming as his invention or discovery more than he had a right to claim as new, the original patent is inoperative or invalid, provided the error has arisen from inadvertance, accident or mistake, and without any fraudulent or deceptive intention. In the cases of patents issued and assigned prior to July 8, 1870, the applications for reissue may be made by the assignees; but in the cases of patents issued or assigned since that date, the applications must be made and the specifications sworn to by the inventors, if they be living.

HOW TO OBTAIN A PATENT.

CAVEATS.—A caveat, under the patent law, is a notice given to the office of the caveator's claim as inventor, in order to prevent the grant of a patent to another for the same alleged invention upon an application filed during the life of the caveat without notice to the caveator.

Any citizen of the United States who has made a new invention or discovery, and desires further time to mature the same, may, on payment of a fee of \$10, file in the Patent Office a caveat setting forth the object and the distinguishing characteristics of the invention, and praying protection of his right until he shall have matured his invention. Such caveat shall be filed in the confidential archives of the office and preserved in secrecy, and shall be operative for the term of one year from the filing thereof.

An alien has the same privilege, if he has resided in the United States one year next preceding the filing of his caveat, and has made oath of his intention to become a citizen.

The caveat must comprise a specification, oath, and, when the Any citizen of the United States who has made a new invention

The caveat must comprise a specification, oath, and, when the nature of the case admits of it, a drawing, and, like the application, must be limited to a single invention or improvement.

FEES.—Fees must be paid in advance, and are as follows: On filing each original application for a patent, \$15. On issuing each filing each original application for a patent, \$15. On issuing each original patent, \$20. In design cases: For three years and six months, \$10; for seven years, \$15; for fourteen years, \$30. On filing each caveat, \$10. On every application for the reissue of a patent, \$30. On filing each disclaimer, \$10. For certified copies of patents and other papers, including certified printed copies, 10 cents per hundred words. For recording every assignment, agreement, power of attorney or other paper, of three hundred words or under, \$1; of over three hundred and under one thousand words, \$2; of over one thousand words, \$3. For copies of drawings, the reasonable cost of making them.

THE BANKRUPTCY LAW.

Extracts from the United States Bankruptcy Act of July 1, 1898 (superseding state laws):

WHO MAY BECOME BANKRUPTS .- (a) Any person SECTION 4. who owes debts, except a corporation, shall be entitled to the bene-

fits of this act as a voluntary bankrupt.

(b) Any natural person (except a wage-earner or a person engaged chiefly in farming or the tillage of the soil), any unincorporated company, and any corporation engaged principally in manufacturing, trading, printing, publishing, or mercantile pursuits, owing debts to the amount of one thousand dollars or over, may be adjudged an involuntary bankrupt upon default or an impartial trial, and shall be subject to the provisions and entitled to the benefits of this act. Private bankers, but not national banks or banks incorporated under State or Territorial laws, may be adjudged involuntary bankrupts.

DUTIES OF BANKRUPTS.—(a) The bankrupt shall (1) SECTION 7. attend the first meeting of his creditors, if directed by the court or a judge thereof to do so, and the hearing upon his application for a discharge, if filed; (2) comply with all lawful orders of

THE BANKRUPTCY LAW.

the court; (3) examine the correctness of all profits of claims filed against his estate; (4) execute and deliver such papers as shall be ordered by the court; (5) execute to his trustee transfers of all his property in foreign countries; (6) immediately inform his trustee of any attempt, by his creditors or other persons, to evade the provisions of this act, coming to his knowledge; (7) in case of any person having to his knowledge proved a false claim against his estate, disclose that act immediately to his trustee; (8) prepare, make oath to, and file in court within ten days, unless further time is greated after the adjustication if (8) prepare, make oath to, and file in court within ten days, unless further time is granted, after the adjudication if an involuntary bankrupt, and with the petition if a voluntary bankrupt, a schedule of his property, showing the amount and kind of property, the location thereof, its money value in detail, and a list of his creditors, showing their residences, if known (if unknown that fact to be stated), the amount due each of them, the consideration thereof, the security held by them, if any, and a claim for such exemptions as he may be entitled to, all in triplicate, one copy of each for the clerk, one for the referee, and one for the trustee; and (9) when present at the first meeting of his creditors, and at such other times as the court shall order, submit to an examination and (9) when present at the first meeting of his creditors, and at such other times as the court shall order, submit to an examination concerning the conducting of his business, the cause of his bank-ruptcy, his dealings with his creditors and other persons, the amount, kind, and whereabouts of his property, and, in addition, all matters which may affect the administration and settlement of his estate; but no testimony given by him shall be offered in evidence against him in any criminal proceedings.

Provided, however, that he shall not be required to attend a meeting of his creditors, or at or for an examination at a place more than one hundred and fifty miles distant from his home or principal place of business, or to examine claims except when presented to him, unless ordered by the court, or a judge thereof, for cause shown, and the bankrupt shall be paid his actual expenses from the estate when examined or required to attend at any place other than the city, town, or village of his residence.

the city, town, or village of his residence.

THE WORLD'S GREAT CITIES.

THE GREAT CITIES OF THE WORLD .- London (1901), 4.536.063; New York (1900), 3,437,202; Paris (1896), 2,536,834; Berlin (1900), 1,884,151; Chicago (1900), 1,698,575; Vienna (1901), 1,635,647; Canton (est.), 1,600,000; Tokio, Japan (1898), 1,440,-121; Philadelphia (1900), 1,293,697; St. Petersburg (inc. suburbs) (1897), 1,267,023; Constantinople (est.), 1,125,000; Calcutta (1901), 1,121,664; Peking (est.), 1,000,000; Moscow (1897), 988,-614; Osaka (1898), 821,235; Bombay (1901), 770,843; Glasgow (1901), 760,423; Hamburg (1900), 705,738; Liverpool (1901), 685,276; Buenos Ayres (1895), 663,854; Warsaw (1897), 638,-209; St. Louis (1900), 575,238; Brussels (inc. suburbs) (1899), 570,844; Cairo, Egypt (1897), 570,062; Boston (1900), 560,892; Naples (1899), 544,057; Manchester, England (1901), 543,969; Amsterdam (1899), 523,557; Rio de Janeiro (1890), 522,651; Birmingham, England (1901), 522,182; Rome (1899), 512,423; Madrid (1897), 512,150; Barcelona (1897), 509,589; Madras (1901), 509,397; Baltimore (1900), 508,957; Buda-Pesth (1891), 505,763; Munich (1900), 499,959.

PARLIAMENTARY LAW AT A GLANCE.

List of Motions Arranged According to their Purpose and Effect.

[Letters refer to rules below.] Modifying or amending.
8. To amend or to substitute, or to divide the question

K

To refer to committee.							_		D	
7. To commit (or recommit)	-	•	-	-	•					
Deferring Action.									C	
6. To postpone to a fixed time	-	-	-	-	-	•	Ā	Ė	Ğ	
4. To lay on the table -	•	-	-	-	-	-	A	بنال	G	
Suppressing or extending debate.							A	E	M	
z. For the previous question	•	-	-	-	-	-	A	A	M	
To limit, or close, debate	-	-	-	-	•	-	•	A	A	
To extend limits of debate	-	-	-	•	•	•	-	-	- A)	
Suppressing the question.	C	, -					н	M	N	
Objection to consideration of	of qu	estio	n	•	•	A	11	· D	E	
9. To postpone indefinitely	-	-	-	•	•	•	Ā	E	Ğ	
9. To postpone indefinitely 4. To lay upon the table	-	-	•	•	•	•	73.	12	G	
To bring up a question the second time	ie.					D	E	F	I	
To reconsider (debatable q	uest	ion	-	•	•	D	É	F	Î	
To reconsider debatable q	e que	estio	a .	•	•	A	12	T.	_	
Concerning Orders, Rules, etc.						A	E	Н	N	
3. For the orders of the day	-	-	•	•	•	A	E.	11	M	
To make subject a special o	rder	-	•	•	-	-	-	-	M	
To amend the rules - To suspend the rules -	-	-	-	•	•	_	T	F	M	
To suspend the rules -	c	-	-	. 1	•	A	E		E	
To take up a question out of	tits	prop	er or	aer	•	-	_	A E	Ğ	
To take from the table -			-		-	-	A		A	
Questions touching priority	ot b	usın	ess	•	-	•	-	•	A	
Questions of privilege.	٠,٠		C4						۸	
Asking leave to continue sp	реакт	ng a	iter	inde	corui	n A	T	7.7	A	
Appeal from chair's decisio	n to	ıchır	ig in	aeco	rum	A	E	H	L	1
Appeal from chair's decision	n ge	nera	пу	-	-	•	E	$\mathbf{H}_{\mathbf{A}}$	E	
Question upon reading of p	aper	S =	_	-	-	-	•	A	E	
Withdrawal of a motion	-	-	-	-	-	-	•	A	,C	
Closing a meeting.				4 - 8-	\					
2. To adjourn (in committees,	to r	ise),	or to	tak	e a {	•	A	E	\mathbf{F}	
recess, without limitation	n	-	•	-	-)				В	
1. To fix the time to which to	adjo	urn	-	-	-	-	-	•	Ъ	
Order of Precedence.—The m	otion	is ab	ove	numi	bered	' 1 to	091	ake	pre-	
cedence over all others in the order g	iven.	, and	any	one o	f the	m, es	ccept	toan	iend	
or substitute, is in order while a me	otion	of	a lo	wer	rank	is f	endi	ng.		
RULE A. Undebatable, but remark										
RULE B. Undebatable if another q	nest	ion i	s bef	ore t	he as	ssem	blv.			
TOLL D. Olidebattable if allottici q	aobe		_ ~ ~ ~	0				2		

RULE C. Limited debate allowed on propriety of postponement only.

RULE D. Opens the main question to debate. Motions not so marked do not allow of reference to main question.

RULE E. Cannot be amended. Motion to adjourn can be amended when there is no other business before the house.

RULE F. Cannot be reconsidered.

refer to committee

RULE G. An affirmative vote cannot be reconsidered. RULE H. In order when another has the floor.

RULE I. A motion to reconsider may be moved and entered when another has the floor, but the business then before the house may not be set aside. This motion can only be entertained when made by one who voted originally with the prevailing side. When called up it takes precedence of all others which may come up, excepting only motions relating to adjournment.

RULE K. A motion to amend an amendment cannot be amended.

PARLIAMENTARY LAW.

RULE L. When an appeal from the chair's decision results in a tie vote, the chair is sustained.

RULE M. Requires a two-thirds vote unless special rules have been enacted. RULE N. Does not require to be seconded.

GENERAL RULES. No motion is open for discussion until it has been stated by the chair. The maker of a motion cannot modify it or withdraw it after it has

been stated by the chair, except by general consent.

Only one reconsideration of a question is permitted. A motion to adjourn, to lay on the table, or to take from the table, cannot be renewed unless some other motion has been made in the interval.

On motion to strike out the words, "Shall the words stand part of the

On motion to strike out the words, "Shall the words stand part of the motion?" unless a majority sustains the words, they are struck out.

On motion for previous question, the form to be observed is, "Shall the main question be now put?" This, if carried, ends debate.

On an appeal from the chair's decision, "Shall the decision be sustained as the ruling of the house?" The chair is generally sustained.

On motion for orders of the day, "Will the house now proceed to the orders of the day?" This, if carried, supersedes intervening motions.

When an objection is raised to considering questions, "Shall the question be considered?" objections may be made by any member before debate has commenced, but not subsequently. has commenced, but not subsequently.

LETTER COMBINATIONS.—When King Stanislaus of Poland, then a young man, came back from a journey, the whole Lescinskian House gathered together at Lissa to receive him. The schoolmaster, Jablowsky, prepared a festival in commemoration of the event, and had it end with a ballet performed by thirteen students, dressed as cavaliers. Each had a shield, upon which one of the letters of the words "Domus Lescinia" (The Lescinskian House) was written in gold. After the first dance, they stood in such a manner that their shields read "Domus Lescinia;" after the second dance, they changed order, making it read, "Ades incolumis" (Unharmed art thou here); after the third, "Mane sidus loci" (Continue the star of this place); after the fourth, "Sis columna Dei" (Be a pillar of God); and finally, "I scande solium!" (Go! ascend the throne). Indeed, these two words allow of 1,556,755,200 transpositions; yet that four of them convey independent and appropriate meanings is certainly very curious.

To Tell Pure Water.—The color, odor, taste and purity of water can be ascertained as follows: Fill a large bottle made of colorless glass with water; look through the water at some black object. Pour out some of the water and leave the bottle half full; cork the bottle and place it for a few hours in a warm place; shake up the water, remove the cork, and critically smell the air contained in the bottle. If it has any smell, particularly if the odor is repulsive, the water should not be used for domestic purposes. By heating the water an odor is evolved that would not otherwise appear. Water fresh from the well is usually tasteless, even if it contains a large amount of putrescible organic matter. All water for domestic purposes should be perfectly tasteless, and remain so even after it has been warmed, since warming often develops a taste in water which is tasteless when cold.

HAND GRENADES.—Take chloride of calcium, crude, 20 parts ; common salt, 5 parts; and water, 75 parts. Mix and put in thin bottles. In case of fire, a bottle so thrown that it will break in or very near the fire will put it out. This mixture is better and cheaper than many of the high-priced grenades sold for the purpose of fire protection.

How to GET RID OF RATS.—Get a piece of lead pipe and use it as a funnel to introduce about 11/2 ounces of sulphide of potassium into any outside holes tenanted by rats, not to be used in dwellings. To get rid of mice use tartar emetic mingled with any favorite food; they will eat, sicken and take their leave.

POINTS OF CRIMINAL LAW.

You cannot lawfully condone an offense by receiving back stolen property.

The exemption of females from arrest applies only in civil, not

in criminal matters.

Every man is bound to obey the call of a Sheriff for assistance in making an arrest.

The rule "Every man's house is his castle" does not hold good

when a man is accused of crime.

Embezzlement can be charged only against a clerk or servant, or the officer or agent of a corporation.

Bigamy cannot be proven in law if one party to a marriage has

been absent and not heard from for five years.

Grand larceny is when the value of property stolen exceeds \$25.00—when less than that, the offense is petit larceny.

Arson to be in the first degree must have been committed at

night and the buildings fired must have been inhabited.

Drunkenness is not a legal excuse for crime, but delirium tremens is considered by the law as a species of insanity.

In a case of assault it is only necessary to prove an "offer or

attempt at assault." Battery presumes physical violence.

Mayhem, although popularly supposed to refer to injury to the face, lip, tongue, eye, or ear, applies to any injury done a limb.

A felony is a crime punishable by imprisonment in a State prison; an "infamous" crime is one punishable with death or State prison.

A police officer is not authorized to make an arrest without a warrant unless he has personal knowledge of the offense for which the agreet is read.

which the arrest is made.

An accident is not a crime, unless criminal carelessness can be proven. A man shooting at a burglar and killing a member of his family is not a murderer.

Burglary in the first degree can be committed only in the night time. Twilight, if dark enough to prevent distinguishing

a man's face, is the same as "night" in law.

Murder to be in the first degree must be willful, premeditated and malicious, or committed while the murderer is engaged in a felonious act. The killing of a man in a duel is murder, and it is

a misdemeanor to accept or give a challenge.

False swearing is perjury in law only when willfully done, and when the oath has been legally administered. Such qualifying expressions as "to the best of my belief," "as I am informed," may save an averment from being perjured. The law is that the false statement sworn to must be absolute. Subornation of perjury is a felony.

BUSINESS AND LEGAL FORMS.

SHORT FORM OF ASSIGNMENT OF WRITTEN INSTRUMENT. FOR VALUE RECEIVED, I do hereby assign, transfer and set over unto C D, and his assigns, all my right, title and interest in and to the within written instrument, this day of, A.D. 1890.

A B.

ORDINARY BILL OF EXCHANGE, OR DRAFT AT A TIME AFTER SIGHT.

Chicago, January 1, 1890. Ten days after sight, pay to the order of WF, two hundred and fifty dollars, for value received, and charge the same to account of

N. Y.

To M. B. & Co., New York City,

J. H. C. & Co., Chicago, Illinois.

When a draft is payable at sight, commence thus: "At sight, pay," etc.

GENERAL FORM OF AGREEMENT.

THIS AGREEMENT, made this day of, one thousand eight hundred and, between A B, of, county of, and State of Illinois, of the first part, and C D, of, in said county and State, of the second part-

Witnesseth, that the said A B, in consideration of the covenants and agreements on the part of the party of the second part hereinafter contained, doth covenant and agree to and with the said C D, that (here insert the agreement on the part of A B).

And the said C D, in consideration of the covenants on the part of the party of the first part, doth covenant and agree to and with the said A B, that (here insert

the agreement on the part of CD).

IN WITNESS WHEREOF, we have hereunto set our hands and seals, the day and r first above written.

A B. [SEAL.]

C D. [SEAL.] year first above written.

COMMON FORM OF BOND FOR PAYMENT OF MONEY.

KNOW ALL MEN BY THESE PRESENTS, that I, AB, of, in the county of, and State of Illinois, am held and firmly bound unto CD, of, in the county of, and State aforesaid, in the sum of dollars, to be paid to the said C D, his executors, administrators and assigns, to which payment, well and truly to be made, I bind myself, my heirs, executors and administrators, and every of them, firmly by these presents.

Sealed with my seal, the day of, A.D. 1890.

The condition of this obligation is such, that if the above bound A B, his heirs, executors and administrators, or either of them, shall well and truly pay, or cause to be paid, unto the said C D, his executors, administrators or assigns, the just and full sum of dollars, with interest thereon, at the yearly rate of per cent. for the same, on or before the day of, A.D. 1890, then this obligation to be void and of no effect; otherwise to remain in full force. AB. SEAL.

FORM OF BILL OF SALE OF GOODS OR PERSONAL PROPERTY. KNOW ALL MEN BY THESE PRESENTS, that I, A B, of, in the county of, and State of Illinois, in consideration of the sum of dollars, to me paid by C D, of, at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, have bargained, sold and delivered, and by the content of the sealing and delivered, and by these presents do bargain, sell and deliver unto the said CD, the following goods and chattels, towit: (Here insert a bill of particular goods sold or personal property).

To have and to hold the said goods and chattels unto the said C D, his executors, administrators and assigns, to his and their own proper use and benefit forever. And I, the said A B, for myself and my heirs, executors and administrators, do warrant and will defend the said bargained premises unto the said C D., his executors, administrators and assigns, from and against all persons whomsoever.

In witness whereof, I have hereunto set my hand and seal, this day A B. [SEAL.] of A.D. 1890.

FORM OF BOND FOR A DEED.

KNOW ALL MEN BY THESE PRESENTS, that I, A B, of the county of, and State of Illinois, am held and firmly bound unto C D, of the county of, and State aforesaid, in the penal sum of dollars, to be paid unto the said E F, his heirs, executors, administrators or assigns, to which payment, well and truly to be made, I bind myself, my heirs, executors and administrators, and every of them, firmly by these presents.

Sealed with my seal, this day of, A.D. 1890.

The condition of the above obligation is such, that whereas the above bounden A B has this day bargained and sold to the said C D, his heirs and assigns, for the sum of dollars, the following described lot or parcel of land, to-wit: (here describe the land,) which sum of dollars is to be paid in manner following: dollars at the ensealing and delivery hereof, and dollars in from the date hereof.

Upon the payment of the said sums being made, at the time and in the manner aforesaid, the said A B, for himself, his heirs, executors and assigns, covenants and agrees, to and with the said C D, his heirs and assigns, to execute a good and sufficient deed of conveyance, in fee simple, free from all incumbrance, with full

and proper covenants of warranty for the above described premises.

Now, if the said A B shall well and truly keep, observe and perform his said covenants and agreements herein contained, on his part, then this obligation to be void; otherwise to remain in full force and virtue.

POWER OF ATTORNEY.

KNOW ALL MEN BY THESE PRESENTS, that I, A B, of, in the county of, and State of Illinois, have made, constituted and appointed, and by these presents do make, constitute and appoint, C D, of, to be my true and lawful attorney, for me and in my name, and for my sole use, to (here state the specific purposes of the power given), hereby giving and granting unto my said attorney full power and authority in the premises to use all lawful means in my name, and for my sole benefit for the purposes aforesaid. And generally to do and perform all such acts, matters and things as my said attorney shall deem necessary or expedient for the completion of the authority hereby given, as fully as I might and could do if I were personally present; hereby ratiiving and confirming all the acts of my said attorney or his substitutes, done by virtue of these presents.

IN WITNESS WHEREOF, I have hereunto set my hand and seal, this day

AP, [SEAL.] of, A.D. 1890.

WARRANTY DEED. The grantor (here insert name or names and place of residence), for and in consideration of (here insert consideration) in hand paid, conveys and warrants to (here insert the grantee's name or names) the following described real estate (here insert description), situated in the county of, in the State of Illinois.

Dated this day of, A.D. 18.. AB. [SEAL.]

QUIT CLAIM DEED.

The grantor (here insert grantor's name or names and place of residence), for the consideration of (here insert consideration), convey and quit claim to (here insert grantee's name or names) all interest in the following described real estate (here insert description), situated in the county of, in the State of Illinois.

Dated this day of, A.D. 18.. A B. [SEAL.]

MORTGAGE.

The mortgagor (here insert name or names) mortgages and warrants to (here insert name or names of mortgagee or mortgagees), to secure the payment of (here recite the nature and amount of indebtedness, showing when due and the rate of interest, and whether secured by note or otherwise), the following described real estate (here insert description thereof), situated in the county of, in the State

Dated this day of, A.D. 18...

FORM OF CERTIFICATE OF ACKNOWLEDGMENT TO DEED OR OTHER INSTRUMENT.

State of (name of State), County of (name of County). \

I (here give name of officer and his official title) do hereby certify that (name of grantor, and if acknowledged by wife, her name, and add "his wife,") personally

BUSINESS AND LEGAL FORMS.

known to me to be the same person whose name is (or are) subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged that he (she or they) signed, sealed or delivered the said instrument as his (her or their) free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and (private or official, as the case may be) seal, this
.....day of....., A.D. 18.. (Signature of officer.) [SEAL.]

SHORT FORM OF LEASE.

THIS INDENTURE, made this day of, A.D. 18.., between A B, party of the first part, and CD, party of the second part, witnesseth, that the said party of the first part, in consideration of the covenants of the party of the second part, hereinafter set forth, do. by these presents, lease to the party of the second part, the following described property, to-wit: (here describe the premises), in the county of, and State of To have and to hold the same, to the party of the second part, from the day of, 18.., to the day of....., 18.. And the party of the second part, in consideration of the leasing of said premises, covenants and agrees to pay the party of the first part, at, as rent for the same, the sum of, payable as follows, to-wit: (Here set forth the terms of payment.)

And the party of the second part covenants with the party of the first part that at the expiration of the term of this lease..he..will yield up the premises to the party of the first part, without further notice, in as good condition as when the same were entered upon by the party of the second part, loss by fire or inevitable accident and ordinary wear excepted, and that neither..he..nor.....legal representatives will underlet said premises, or any part thereof, or assign this lease, without the

written assent of the party of the first part first had thereto.

And it is further expressly agreed between the parties hereto, that if default shall be made in the payment of the rent above reserved, or any part thereof, or any of the covenants or agreements herein contained to be kept by the party of the second part, it shall be lawful for the party of the first part orlegal representatives, into and upon said premises, or any part thereof, either with or without process of law, to re-enter and re-possess the same at the election of the party of the first part, and to distrain for any rent that may be due thereon upon any property belonging to the party of the second part. And in order to enforce a forfeiture for non-payment of rent, it shall not be necessary to make a demand on the same day the rent shall become due, but a failure to pay the same at the place aforesaid, or a demand and a refusal to pay on the same day or at any time on any subsequent day, shall be sufficient; and after such default shall be made, the party of the second part and all persons in possession under shall be deemed guilty of a forcible detainer of said premises under the statute.

And it is further covenanted and agreed between said parties that (here set forth any further stipulation agreed upon.) The covenants herein shall extend to and be binding upon the heirs, executors and administrators of the parties to this

Witness the hands and seals of said parties, the day and year first above AB. [SEAL.] CD. [SEAL.] writen.

FORM OF WILL.

I, A B, of, in the county of, and State of Illinois, of the age of ... years, of sound mind and memory, do make, publish and declare this my last will and testament in the manner following: That is to say,

First, I give and bequeath to (here may be set forth the manner of disposition

of personal property, and the names of persons and amount to each.)

Second, I give and devise to (here set forth the manner of disposition of real property, and the names of persons to whom devised, concluding as follows:) To have and to hold the same and the several tracts and parcels thereof to the said ..., his heirs and assigns forever.

And lastly, I do hereby nominate and appoint to be executor of this my last will and testament, hereby revoking all former wills by me made. (Add the following clause if desired:) And I do direct that my said executor shall not be

obliged to give security as such.

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BUSINESS AND LEGAL FORMS.

In witness whereof, I have hereunto set my hand and seal this day of A.D. 18..

The above instrument, consisting of one sheet (or two sheets, as the case may be) was at the date thereof signed, sealed, published and declared by the said A B as and for his last will and testament, in presence of us, who, at his request and in his presence, and in the presence of each other, have subscribed our names as witnesses thereto (or, "the above instrument, consisting of one sheet was at the date thereof, declared to us by the said A B, the testator therein mentioned, to be his last will and testament; and at the same time acknowledged to us, and each of us, that he had signed and sealed the same, and we therefore, at his request and in his presence, and in the presence of each other, signed our names thereto as attesting witnesses.)"

C D, residing at, in county.

GH, residing at, in county.

The oregoing is the general form of will, which can be varied in case of several devisees and legatees, according to the facts or as circumstances may require.

A devisee is one to whom real property is devised in the will. A legatee is one to whom personal property is given in the will.

BILL OF SALE.

Know all Men by these presents, that I, E D, of the town of, county of, State of, of the first part, for and in consideration of the sum of one hundred dollars, lawful money of the United States, to me in hand paid, at or before the ensealing and delivery of these presents, by C B, of the second part, the receipt whereof is hereby acknowledged, have bargained, sold, granted and conveyed, and by these presents do bargain, sell, grant and convey unto the said party of the second part, his executors, administrators and assigns (here set out the articles sold), to have and to hold the same unto the said party of the second part, his executors, administrators and assigns, forever. And I do for myself, my heirs, executors and administrators, covenant and agree to and with the said party of the second part, to warrant and defend the said described goods hereby sold unto the said party of the second part, his executors, administrators and assigns, against all and every person and persons whatsoever.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the day of ..., 18.. ED. (SEAL.)

Signed, sealed and delivered in the presence of B B.

PROMISSORY NOTE.

\$200.

Thirty days after date I promise to pay B B, or order (or bearer), two hundred dollars, for value received.

B. E.

JOINT PROMISSORY NOTE.

\$1,050. Memphis,...., 13..

Sixty days after date we jointly promise to pay C D, or order (or bearer), one thousand and fifty dollars, for value received.

A C.

B H.

NOTE PAYABLE ON DEMAND.

\$100. Mobile,...., 18..

On demand, for value received, I promise to pay H B, or order (or bearer), one hundred dollars (with interest).

C. C.

NOTE PAYABLE AT BANK.

\$300. St. Louis,...., 18..

Thirty days after date, for value received, I promise to pay C D A, or order (or bearer), three hundred dollars, at the German-American Savings Bank. D R S.

NOTE NOT NEGOTIABLE.

Two months after date I promise to pay J H, one hundred dollars, for value received.

BB.

NOTE WITH SURETY.

Columbus, Miss.,..., 18..

Six months from date I promise to pay E G, or order (or bearer), seventy-five dollars, for value received.

B B.

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X X.

NOTE PAYABLE BY INSTALLMENTS.

For value received, I promise to pay A C, or order (or bearer), five hundred dollars, in the following manner: One hundred dollars in three months, two hundred dollars in nine months, one hundred dollars in twelve months, and one hundred dollars in fifteen months, from date, with interest on the several sums as they may become due.

DIFF PHT

DUE BILL.

Due A W, fifty dollars, with interest from this date.

Cincinnati,...., 18..

M A.

DRAFT AT SIGHT.

At sight, pay J C, or order, one hundred dollars, and charge the same to my account.

To A X.

BILL OF EXCHANGE.

Fifteen days after sight (or as many days as may be agreed upon), pay to the order of Mr. B B, five hundred dollars, and charge the same to the account of To L M, St. Louis, Mo.

HIGH WATER

At the following places may be found for each day by adding to, or substracting from, the time of high water at New York the hours and minutes given. The * denotes time to be added; the † to be subtracted. The interval between tides is approximately twelve hours.

,	Time.		Time.
Albany, N. Y.*	9:39	Newport, R. I.†	0:22
Annapolis, Md.*	8:57	Norfolk, Va.*	0.56
Atlantic City, N. J. †	A = 0 3	Norwich, Conn.*	2:05
Baltimore, Md.*			0:37
Block Island, R. I.†	0:53	Philadelphia, Pa.*	5:37
Boston, Mass.*	3:22	Plymouth, Mass.*	3:12
Bridgeport, Conn.*	3:04	Point Lookout, Me.*	4:49
Bristol, R. I.†	0.02	Portland, Me.*	3:10
Cape May, N. J.*		Portsmouth, N. H.*	3:16
Charleston, S. C.†	0:43	Poughkeepsie, N. Y.*	4:27
Eastport, Me.*	3:01	Providence, R. I.*	0:07
Fernandina, Fla.†	0:19	Richmond, Va.*	8:47
Gloucester, Mass.*	2:57	Rockaway Inlet, N. Y.†	0:26
Isles of Shoals*	3:11	Rockland, Me.*	2:55
Jacksonville, Fla.*		Rockport, Mass.*	
Key West, Fla.*		Salem, Mass.*	3:05
Marblehead, Mass.*	3:04	Sandy Hook, N. J.*	
Nahant, Mass.*	3:02	Savannah, Ga.†	
Nantucket, Mass.*		Vineyard Haven, Mass.*.	
New Bedford, Mass.*		Washington, D. C.*	
Newburyport, Mass.*	3:29	Watch Hill, R. I.*	
New Haven, Conn.*	3:01	West Point, N. Y.*	
New London, Conn.*	1:16	Wilmington, N. C.*	0:59

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STOCK INVESTMENTS EXPLAINED.

HE CAPITAL of corporations is always divided into shares, usually of \$100 each. These are known as stock, and represent an interest in the property and profits of the company. A dividend is the distribution of the profits, proportionate to number of shares held among the stockholders. Stock certificates are written instruments, signed by the proper officers of the company, and certifying that the holder is the owner of a certain number of shares. These are transferable, and may be bought and sold the same as other property. The sum for which each share or certificate was issued is the par value, and the amount for which it can be sold the market value.

PREFERRED STOCK takes preference of the ordinary stock of a corporation, and the holders are entitled to a stated per cent. annually out of net earnings before a dividend can be declared on common stock. Preferred stocks are generally the result of reorganization, although sometimes issued in payment of floating

or unsecured debts.

WATERING STOCK.—Sometimes the charter of a corporation forbids the declaring of a dividend exceeding a certain per cent. of the par value of its stock. In this case the directors may find it desirable to "water" the stock—that is, issue additional shares. This increase in the number of shares of course reduces the percentage of dividend, although the same profit in the aggregate is secured to the stockholders.

Dealing in Stocks.

The person employing a broker to buy the stock is required to advance at the outset a certain per cent. of the purchase price of the stock, as security for possible losses by reason of a decline of the stock while in the broker's hands. The amount of the margin required is generally 10 per cent., but may be more or less, and frequently is nothing at all, depending on the broker's confidence in his customer's readiness to meet losses, if there be any.

The broker then goes into the stock exchange and buys of some selling broker the stock indicated, the buying broker him-

self advancing the purchase money.

The relation existing between the customer and the broker in

a transaction of this kind may be briefly stated as follows:

The broker agrees: I. That he will buy for his customer the stock indicated, at its market value. 2. That he will hold the stock for the benefit of his customer so long as the necessary margin is advanced, and kept paid, or until notice is given by either party that the transaction must be closed. 3. That he will at all times have the stock in his possession or under his control; or an equal amount of other shares of the same stock, sub-

STOCKS AND BONDS.

ject to the call of the customer. 4. That he will sell the shares on the order of the customer, on payment to him of the purchase price advanced by the broker, accounting to the customer for the proceeds of the sale. 5. That he will exercise proper care and competent skill in the services which he undertakes to

The customer agrees: 1. To pay the margin called for at the outset. 2. To keep good such margin according to the fluctuation of the market. 3. To take the stock purchased by his order when requested to do so by the broker, paying the latter the difference between the margin advanced and the sum paid for the stock by the broker, together with his commissions for doing the

business.

Although the broker's money bought the stock, it belongs to the customer, together with all its earnings and dividends, while in the broker's possession, and the customer is entitled to the possession of the stock on payment to the broker of the sum of money to which he is entitled.

The broker may pledge the stock, or use it in his business, as collateral, but he must have it ready when called for by the customer, or other shares of the same stock equivalent in value.

The customer and the broker may make an express agreement that the broker may sell the stock without notice to the customer in the case of a threatened decline.

Generally speaking, when there are no directions as to selling, the broker will be protected if he can show that he followed the usual custom of brokers in like circumstances.

If the customer fails to advance the necessary margin when called for on reasonable notice, the broker may sell for his own

The reasonable notice may be an hour, a day, or a week, depending on the condition of the market for that particular stock.

If a broker fraudulently converts the stock to his own use, he is guilty of cmbezzlement.

Bonds.

A bond is in the nature of a promissory note—the obligation of a corporation, state, county or city to pay a certain sum of money at a certain time, with interest payable at fixed periods or

upon certain conditions.

The bond of a company may be a perfectly safe investment, when the stock is not; and the stock of a prosperous and successful company, paying large dividends or having a large surplus, may sell at a higher price than the bonds of the same company, the income from which is limited to the agreed rate of interest which they bear. A much closer scrutiny should be made

BROKERAGE AND COMMISSION.

of a company's standing when one thinks of investing in its share capital, than when it is the intention to loan the company money on its mortgage bonds.

Generally the bonds of business corporations are secured by mortgage, but some classes of bonds are dependent on the solv-

ency or good faith of the company issuing them.

The coupons attached to bonds represent the different installments of interest, and are to be cut off and collected from time to time as the interest becomes payable. Bonds are sometimes issued without coupons, and are then called registered bonds. Such bonds are payable only to the registered owner, and the interest on these is paid by check. Convertible bonds are such as contain provisions whereby they may be exchanged for stock,

lands or other property.

Bonds are known as First Mortgage, Second Mortgage, etc., Debentures, Consols, Convertible Land Grant, Sinking Fund, Adjustment, Income or otherwise, according to their priority of lien, the class of property upon which they are secured, etc. Income bonds are generally bonds on which the interest is only payable if earned, and ordinarily are not secured by mortgage. Bonds are also named from the rate of interest they bear, or from the dates at which they are payable or redeemable, or from both; as, U. S. 4's 1907, Virginia 6's Western Union 7's, coupon, 1900, Lake Shore reg. 2d, 1903.

Brokerage and Commission.

A commission merchant, or factor, is an agent intrusted by his principal with goods to be sold, with the authority to deduct from the proceeds of the sales a certain sum agreed upon as compensation for his services, remitting the balance to his principal.

Such an agent impliedly agrees to perform his duties in a careful and diligent manner, and to obey the orders and instructions

which he receives from his principal so far as he is able.

He is bound to exercise his judgment and discretion to the best advantage of his principal, and to render just and true accounts.

In the absence of special instructions to the contrary, he has an implied authority to sell at such times, and at such prices, as in the exercise of his discretion he may deem for the best interests of his principal.

He may seli on credit, if it is customary so to do, among those in the same business, unless he has received orders to the con-

trary.

All profits made by him in handling his principal's property or money, beyond his ordinary compensation, are for the benefit of the principal.

He cannot himself be the purchaser of the goods intrusted .

TERMS USED ON 'CHANGE.

ACCOMMODATION PAPER.—Notes or bills not representing an actual sale or trade transaction, but merely drawn to be discounted for the benefit of drawer, acceptor or indorsers, or all combined.

BALANCE OF TRADE.—Difference in value between total imports

and exports of a country.

BALLOONING.—To work up a stock far beyond its intrinsic worth by favorable stories or fictitious sales.

BEAR.—One who strives to depress the price of stocks, etc., and

for this reason "goes short."

Buying Long.—Buying in expectation of a rise. Breadstuffs.—Any kind of grain, corn or meal.

Broker.—An agent or factor; a middleman paid by commis-

Brokerage.—A percentage for the purchase or sale of money and stocks.

Bull.—A broker or dealer who believes that the value of stocks or breadstuffs will rise, and speculates for a rise.

CALL.—Demand for payment of installments due on stocks. CALL.—A privilege given to another to "call" for delivery at a

time and price fixed.

CLIQUE.—A combination of operators controlling large capital

in order to unduly expand or break down the market.

COLLATERALS.—Any kind of values given in pawn when money

is borrowed.

CORNERS.—The buying up of a large quantity of stocks or grain to raise the price. When the market is oversold, the shorts if compelled to deliver, find themselves in a "corner."

CURBSTONE BROKERS.—Brokers or agents who are not members of any regular organization, and do business mainly on the side-

walk.

Delivery.—When stock or grain is brought to the buyer in exact accordance with the rules of the Exchange it is called a good delivery. When there are irregularities the delivery is pronounced bad, and the buyer can appeal to the Exchange.

Differences.—The price at which a stock is bargained for and the rate or day of delivery are not usually the same, the variation being termed the difference

being termed the difference.

FACTOR.—An agent appointed to sell goods on commission.

FACTORAGE.—Commissions allowed factors.

FLAT.—Inactive; depressed; dull. The flat value of bonds and stocks is the value without interest. FLYER.—A small side operation.

FORCING QUOTATIONS is where brokers wish to keep up the price of a stock and to prevent its falling out of sight. This is generally accomplished by a small sale.

GUNNING a stock is to use every art to produce a break when it is known that a certain house is heavily supplied and would

be unable to resist an attack.

KITE-FLYING.—Expanding one's credit beyond wholesome limits. LAME DUCK.—Stock-broker's slang for one unable to meet his liabilities.

Long.—One is long when he carries stock or grain for a rise. POINTER.—A theory or fact regarding the market on which one bases a speculation.

Pool.—The stock or money contributed by a clique to carry

through a corner.

PRICE CURRENT.—The prevailing price of merchandise, stock, etc. Selling Short.—To "sell short" is to sell for future delivery what one has not got, in hopes that prices will fall.

WATERING a stock is the art of doubling the quantity of stock

without improving its quality.

HINTS TO ADVERTISERS.

The first thing for an advertiser to decide is the mediums which reach the desired class of customers. Cheap mediums do not, as a rule, bring good returns, neither does it follow that a periodical claiming a large circulation takes precedence over one with a less circulation. The tone of the publication and character of its readers determine much. A first class periodical with a bona fide paid circulation is far more desirable than a much larger sample copy circulation. People who think enough of a publication to buy it are very apt to read it.

Except in special cases, hand-bills and dodgers are of little or

no account.

The advertisement must be attractive, and if lasting results be desired, the goods must be as represented, and the advertisement honestly worded.

The occasional advertiser reaps but meager results; 'tis the

constant, persistent advertiser who reaps the most benefit.

The secret of success in advertising lies largely in keeping the

name and goods constantly before the eye of the public.

Printer's ink is beneficial to any business, but common sense and good judgment are absolutely necessary. The shrewd advertiser and successful business man exercises as much care and discretion in placing his advertisement as he does in buying his goods.

HOW TO COLLECT A DEBT.

Thousands of dollars are lost every day through negligence or carelessness of creditors.

If there is a fixed date for payment, be on hand promptly to receive it.

If not paid, follow it up closely.

If party cannot pay now, get a promise for another date of payment. Pleasant words and a genial bearing invariably are more effective than threats of legal measures.

If the debtor lives near, call and express your urgent needs of

money, etc.

If you cannot get it all, take a part, and get a note for the balance. Notes are more easily handled and collected than open accounts.

If the debtor is irresponsible, get him to secure an indorser, so that you "can get the money on it at the bank," etc.

If possible, "know your man."

With some it is absolutely necessary to be sharp and positive, while the man who honestly intends to pay can be handled better by pleasant words, though frank and business-like.

If a debtor is at a distance, write a courteous letter, inclosing

bill or statement, requesting prompt settlement.

If necessary, a second or third letter should be written.

HOW TO MAKE CHANGE QUICKLY.

Always consider the amount of purchase as if that much money were already counted out, then add to amount of purchase enough small change to make even dollars, counting out the even dollars last until full amount is made up.

If the purchase amounts to 57 cents, and you are handed \$2.00 in payment, count out 43 cents first to make an even dollar. Then

lay out the other dollar.

Should the purchase be \$3.69, to be taken out of \$20,00, begin with \$3.69 as the basis and make up even \$4.00 by laying out 31 cents. This 31 cents with the amount of the purchase you will consider as \$4.00, and count out even dollars to make up the \$20.00 which the customer has handed in.

MERCHANTS' COST AND PRICE MARKS.

All merchants use private cipher marks to note cost or selling price of goods. The cipher is usually made up from some short word or sentence of nine or ten letters, as:

C O R N E L I U S, A. 1 2 3 4 5 6 7 8 9 0.

Five dollars, according to this key, would be eaa. But generally an extra letter is used to prevent repeating the mark for 0. If the sign for a second 0 in this case were y, we would have eay instead of eaa.

TIME IN WHICH MONEY DOUBLES.

Per Cent.	SIMPLE INT.	COMP. INT.	Per Cent.	SIMPLE INT.	COMP. INT.
$ \begin{array}{c} 2^{1/2} \\ 3 \\ 3^{1/2} \\ 4 \end{array} $	40 years. 33 yrs. 4 mos. 28 yrs. 208 da. 25 years.	35 years. 28 yrs. 26 da. 23 yrs. 164 da. 20 yrs. 54 da. 17 yrs. 246 da. 15 yrs. 273 da.	$\begin{bmatrix} 6\\7\\8\\9 \end{bmatrix}$	20 years. 16 yrs. 8 mos. 14 yrs. 164 da. 12½ years. 11 yrs. 40 da. 10 years.	11 yrs. 327 da. 10 yrs. 89 da. 9 yrs. 2 da.

"A Dollar Saved, a Dollar Earned."

The way to accumulate money is to save small sums with regularity. A small sum saved daily for fifty years will grow at the following rate:

<u> </u>			
		DAILY SAVINGS.	
One cent	\$ 950	Sixty cents	57,024
Ten cents	9,504	Seventy cents	66,528
Twenty cents	19,006	Eighty cents	76,032
Thirty cents	28,512	Ninety cents	85,537
Forty cents	38,015	One Dollar	475,208
Fifty cents	47,520		•

SHORT INTEREST RULES.

To find the interest on a given sum for any number of days, at any rate of interest, multiply the principal by the number of days and divide as follows.

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At 3 per cent., by 120	At 9 per cent., by 40
At 4 per cent., by 90	At 10 per cent., by 36
At 5 per cent., by $\cdot \cdot \cdot \cdot \cdot 72$	At 12 per cent., by 30
At 6 per cent., by 60	At 15 per cent., by $\cdot \cdot \cdot$
At 7 per cent., by 52	At 20 per cent., by 18
At 8 per cent., by 45	

TRADE DISCOUNTS.

Wholesale houses usually invoice their goods to retailers at 'list" prices. List prices were once upon a time supposed to be retail prices, but of late a system of "long" list prices has come into vogue in many lines of trade—that is, the list price is made exorbitantly high, so that wholesalers can give enormous dis-These discounts, whether large or small, are called trade discounts, and are usually deducted at a certain rate per cent. from the face of invoice.

The amount of discount generally depends upon size of bill or terms of settlement, or both. Sometimes two or more discounts are allowed. Thus 30% and 5% is expressed 30 and 5, meaning first a discount of 30% and then 5% from the remainder.

3c and 5 is not 35%, but $33\frac{1}{2}\%$. 10, 5 and 3 off means three

successive discounts.

A wholesale house allowing 10, 5 and 3 off gets more for its goods than it would at 18 off.

HOW TO DETECT COUNTERFEIT MONEY.

Ir. the space at disposal here, it is impossible of course to give a complete illustrated counterfeit detector, but the following simple rules, laid down by Bank Note Examiner Geo. R. Baker, will be found extremely valuable:

Examine the form and features of all human figures; if graceful, and features distinct, examine the drapery. Notice whether the folds lie naturally, and observe whether the fine strands of the hair are plain and distinct.

Examine the lettering. In a genuine bill it is absolutely perfect. There has never been a counterfeit put out but was more or less defective in the lettering.

Counterfeiters rarely, if ever, get the imprint or engraver's name perfect. The shading in the background of the vignette and over and around the letters forming the name of the bank, on a good bill, is even and perfect; on a counterfeit it is uneven and imperfect. even and imperfect.

The die work around the figures of the denomination should be of the same

character as the ornamental work surrounding it.

Never take a bill deficient in any of these points.

BIG TREES.—Of ninety-two redwood trees in Calaveras Grove, Cal., ten are over thirty feet in diameter, and eighty-two have a diameter of from fifteen to thirty feet. Their ages are estimated at from 1,000 to 3,500 years. Their height ranges from 150 to 237 feet.

240

BANKERS' TIME TABLE.

To Find the Number of Days Between Any Two Dates of the Same Year, or Two Conscious

Consult the following table. The numbers in black letter at head of the columns represent the months:—1, January; 2, February, etc. In leap years, add one to the corresponding numbers of all dates after February 28.

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FREEZING, FUSING AND BOILING POINTS.

Substances.	REAUMUR.	CENTI- GRADE.	FAHREN- HEIT.
FREEZING—			
Bromine freezes at	<u>—16</u> °	200	<u> </u>
Oil Anise	8	10	50
" Olive	8	10	50
" Rose	12	15	60
Quicksilver	-31.5	-39.4	39
Water	- 1	0	32
Fusing—			
Bismuth metal fuses at	200	264	507
Cadmium	248.8	315	592
Copper	874.6	1093	2000
Gold	961	1200	2200
Iodine	92	115	239
Iron	1230	1538	280 0
Lead	255.5	325	617
Potassium	46	58	136
Phosphorus	34	44	111
Silver	816.8	1021	1870
" Nitrate	159	198	389
Sodium	72	90	194
Steel	1452	1856	3300
Sulphur	72	90	194
Tin	173	230	446
Zinc	328	410	770
Boiling-			
Alcohol boils at	63	78	173
Bromine	50	53	145
Ether	28	35	95
" Nitrous	11	14	57
Iodine	140	175	347
Olive Oil	252	315	600
Quicksilver	280	350	662
Water	80	100	212

Dangers of Foul Air.—If the condensed breath collected on the cool window panes of a room where a number of persons have been assembled be burned, a smell as of singed hair will show the presence of organic matter, and if the condensed breath be allowed to remain on the windows for a few days, it will be found, on examination by the microscope, that it is alive with animaculæ. It is the inhalation of air containing such putrescent matter which causes half of the sick-headaches, which might be avoided by a circulation of fresh air.

2.42

PHYSICAL EXERCISE.

HE principal methods of developing the physique now prescribed by trainers are exercise with dumbbells, the bar bell and the chest weight. The rings and horizontal and parallel bars are also used, but not nearly to the extent that they formerly were. The movement has been all in the direction of the simplification of apparatus; in fact, one well-known teacher of the Boston Gymnasium when asked his opinion said: "Four bare walls and a floor, with a well-posted instructor, is all that is really required for a gymnasium."

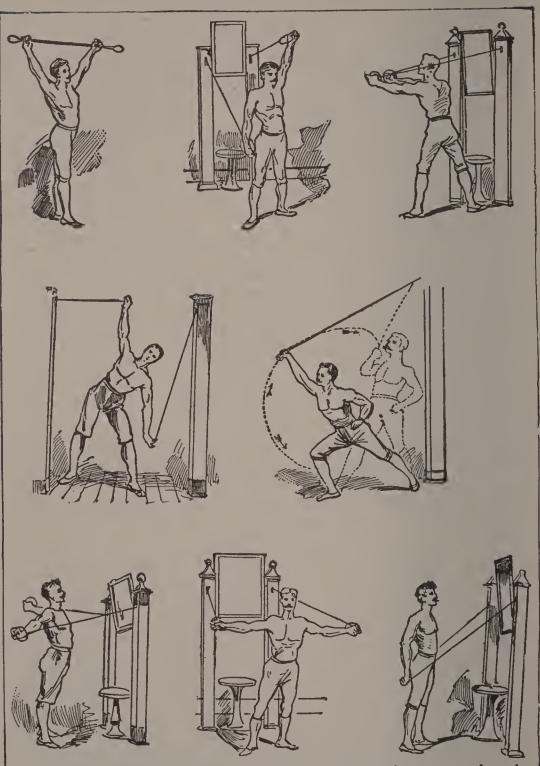
Probably the most important as well as the simplest appliance for gymnasium work is the wooden dumbbell, which has displaced the ponderous iron bell of former days. Its weight is from three-quarters of a pound to a pound and a half, and with one in each hand a variety of motions can be gone through, which are of immense benefit in building up or toning

down every muscle and all vital parts of the body.

The first object of an instructor in taking a beginner in hand is to increase the circulation. This is done by exercising the extremities, the first movement being one of the hands, after which come the wrists, then the arms, and next the head and feet. As the circulation is increased the necessity for a larger supply of oxygen, technically called "oxygen-hunger," is created, which is only satisfied by breathing exercises, which develop the lungs. After the circulation is in a satisfactory condition, the dumbbell instructor turns his attention to exercising the great muscles of the body, beginning with those of the back, strengthening which holds the body erect, thus increasing the chest capacity, invigorating the digestive organs, and, in fact, all the vital functions. By the use of very light weights an equal and symmetrical development of all parts of the body is obtained, and then there are no sudden demands on the heart and lungs.

After the dumbbell comes exercise with the round, or bar bell. This is like the dumbbell, with the exception that the bar connecting the balls is four or five feet, instead of a few inches in length. Bar bells weigh from one to two pounds each, and are found most useful in building up the respiratory and digestive systems, their especial province being the strengthening of the erector muscles and increasing the flexibility of the chest.

Of all fixed apparatus in use the pulley weight stands easily first in importance. These weights are available for a greater variety of objects than any other gymnastic appliance, and can be used either for general exercise or for strengthening such muscles as most require it. With them a greater localization is possible than with the dumbbell, and for this reason they are recommended as a kind of supplement to the latter. As chest de-



1. The bar bell—chest expander. 2. Anterior muscular developer. 3. Developing loins and lumbar region—aid to digestion. 4. Side and loin development. 5. Giant pulley exercise—for elevating right side of chest. 6. Developing muscles that hold the shoulders back. 7. Developing muscles of front upper chest. 8. Posterior development—to make one erect.

PHYSICAL EXERCISE.

velopers and correctors of round shoulders they are most effective. As the name implies, they are simply weights attached to ropes, which pass over pulleys, and are provided with handles. The common pulley is placed at about the height of the shoulder of an average man, but recently those which can be adjusted to any desired height have been very generally introduced.

When more special localization is desired than can be obtained by means of the ordinary apparatus, what is known as the double-action chest weight is used. This differs from the ordinary kind in being provided with several pulleys, so that the strain may come at different angles. Double-action weights may be divided into three classes—high, low and side pulleys—

each with its particular use.

The highest of all, known as the giant pulleys, are made especially for developing the muscles of the back and chest, and by stretching or elongating movements to increase the interior capacity of the chest. If the front of the chest is full and the back or side chest deficient, the pupil is set to work on the giant To build up the side-walls he stands with the back to the pulley-box and the left heel resting against it; the handle is grasped in the right hand if the right side of the chest is lacking in development, and then drawn straight down by the side; a step forward with the right foot, as long as possible, is taken, the line brought as far to the front and near the floor as can be done. and then the arm, held stiff, allowed to be drawn slowly up by the weight. To exercise the left side the same process is gone through with, the handle grasped in the left hand. Another kind of giant pulley is that which allows the operator to stand directly under it, and is used for increasing the lateral diameter of the chest. The handles are drawn straight down by the sides, the arms are then spread and drawn back by the weights. erally speaking, high pulleys are most used for correcting high, round shoulders; low pulleys for low, round shoulders; side pullevs for individual high or low shoulders, and giant pulleys for the development of the walls of the chest and to correct spinal curvature.

The traveling rings, a line of iron rings covered with rubber and attached to long ropes fastened to the ceiling some ten feet apart, are also valuable in developing the muscles of the back, arms and sides. The first ring is grasped in one hand and a spring taken from an elevated platform. The momentum carries the gymnast to the next ring, which is seized with the free hand, and so the entire length of the line is traversed. The parallel bars, low and high, the flying rings, the horizontal bar and the trapeze all have their uses, but of late years they have been relegated to a position of distinct inferiority to that now occcupied by the dumbbells and pulley weights.

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ACCIDENTS AND EMERGENCIES.

WHAT TO DO.

If an artery is cut, red blood spurts. Compress it above the wound. If a vein is cut, dark blood flows. Compress it below and above.

If choked, go upon all fours and cough.

For slight burns, dip the part in cold water; if the skin is destroyed, cover with varnish or linseed oil.

For apoplexy, raise the head and body; for fainting, lay the

person flat.

Send for a physician when a serious accident of any kind occurs, but treat as directed until he arrives.

SCALDS AND BURNS-The following facts cannot be too firmly impressed on the mind of the reader, that in either of these accidents the first, best, and often the only remedies required, are sheets of wadding, fine wool, or carded cotton, and in the default of these, violet powder, flour, magnesia, or chalk. The object for which these several articles are employed is the same in each instance; namely, to exclude the air from the injured part; for if the air can be effectually shut out from the raw surface, and care is taken not to expose the tender part till the new cuticle is formed, the cure may be safely left to nature. The moment a person is called to a case of scald or burn, he should cover the part with a sheet, or a portion of a sheet, of wadding, taking care not to break any blister that may have formed, or stay to remove any burnt clothes that may adhere to the surface, but as quickly as possible envelop every part of the injury from all access of the air, laying one or two more pieces of wadding on the first, so as effectually to guard the burn or scald from the irritation of the atmosphere; and if the article used is wool or cotton, the same precaution, of adding more material where the surface is thinly covered, must be adopted; a light bandage finally securing all in their places. Any of the popular remedies recommended below may be employed when neither wool, cotton, nor wadding are to be procured, it being always remembered that that article which will best exclude the air from a burn or scald is the best, quickest, and least painful mode of treatment. And in this respect nothing has surpassed cotton loose or attached to paper as in wadding.

If the Skin is Much Injured in burns, spread some linen pretty thickly with chalk ointment, and lay over the part, and give the patient some brandy and water if much exhausted; then send for a medical man. If not much injured, and very painful, use the same ointment, or apply carded cotton dipped in lime water and linseed oil. If you please, you may lay cloths dipped in ether over the parts, or cold lotions. Treat scalds in same manner, or cover with scraped raw potato; but the chalk ointment is the best. In the absence of all these, cover the

injured part with treacle, and dust over it plenty of flour.

BODY IN FLAMES—Lay the person down on the floor of the room, and throw the table cloth, rug, or other large cloth over him, and roll him on the floor.

DIRT IN THE EYE-Place your forefinger upon the cheek-bone, having the patient before you; then slightly bend the finger, this will draw down the lower lid of the eye, and you will probably be able to remove the dirt; but if this will not enable you to get at it, repeat this operation while you have a netting-needle or bodkin placed over the eyelid; this will turn it inside out, and enable you to remove the sand, or eyelash, etc., with the corner of a fine silk handkerchief. As soon as the substance is removed, bathe the eye with cold water, and exclude the light for a day. If the inflammation is severe, let the patient use a refrigerant lotion.

LIME IN THE EYE-Syringe it well with warm vinegar and water in the proprotion of one ounce of vinegar to eight ounces of water; exclude

light.

ACCIDENTS AND EMERGENCIES.

IRON OR STEEL SPICULÆ IN THE EYE-These occur while turning iron or steel in a lathe, and are best remedied by doubling back the upper or lower eyelid, according to the situation of the substance, and with the flat edge of a silver probe, taking up the metallic particle, using a lotion made by dissolving six grains of sugar of lead and the same of white vitriol, in six ounces of water, and bathing the eye three times a day till the inflammation subsides. Another plan is-Drop a solution of sulphate of copper (from one to three grains of the salt to one ounce of water) into the eye, or keep the eye open in a wineglassful of the solution. Bathe with cold lotion, and exclude light to keep down inflammation.

DISLOCATED THUMB—This is frequently produced by a fall. Make a clove hitch, by passing two loops of cord over the thumb, placing a piece of rag under the cord to prevent it cutting the thumb; then pull in the same line as the

thumb. Afterwards apply a cold lotion.

CUTS AND WOUNDS—Clean cut wounds, whether deep or superficial, and likely to heal by the first intention, should always be washed or and at once evenly and smoothly closed by bringing both securing that them in and together, close Cut thin strips of sticking plaster, and plaster. parts together; or if large and deep, cut two broad pieces, so as to look like the teeth of a comb, and place one on each side of the wound, which must be cleaned previously. These pieces must be arranged so that they shall interlace one another; then, by laying hold of the pieces on the right side with one hand, and those on the other side with the other hand, and pulling them from one another, the edges of the wound are brought together without any difficulty.

Ordinary Cuts are dressed by thin strips, applied by pressing down the plaster on one side of the wound, and keeping it there and pulling in the opposite direction; then suddenly depressing the hand when the edges of the wound

are brought together.

CONTUSIONS are best healed by laying a piece of folded lint, well wetted with extract of lead, or boracic acid, on the part, and, if there is much pain, placing a hot bran poultice over the dressing, repeating both, if necessary, every two hours. When the injuries are very severe, lay a cloth over the part, and suspend a basin over it filled with cold lotion. Put a piece of cotton into the basin, so that it shall allow the lotion to drop on the cloth, and thus keep it always wet.

HEMORRHAGE, when caused by an artery being divided or torn, may be known by the blood issuing out of the wound in leaps or jerks, and being of a bright scarlet color. If a vein is injured, the blood is darker and flows continuously. To arrest the latter, apply pressure by means of a compress and bandage. To arrest arterial bleeding, get a piece of wood (part of a broom handle will do), and tie a piece of tape to one end of it; then tie a piece of tape loosely over the arm, and pass the other end of the wood under it; twist the stick round and round until the tape compresses the arm sufficiently to arrest the bleeding, and then confine the other end by tying the string around the arm. A compress made by enfolding a penny piece in several folds of lint or linen should, however, be first placed under the tape and over the artery. If the bleeding is very obstinate, and it occurs in the arm, place a cork underneath the string, on the inside of the fleshy part, where the artery may be felt beating by any one; if in the leg, place a cork in the direction of a line drawn from the inner part of the knee towards the outer part of the groin. It is an excellent thing to accustom yourself to find out the position of these arteries, or, indeed, any that are superficial, and to explain to every person in your house where they are, and how to stop bleeding. If a stick cannot be got take a handkerchief, make a cord bandage of it, and tie a knot in the middle; the knot acts as a compress, and should be placed over the artery, while the two ends are to be tied around the thumb. Observe always to place the ligature between the wound and the heart. Putting your finger into a bleeding wound, and making pressure until a surgeon arrives, will generally stop violent bleeding.

BLEEDING FROM THE NOSE, from whatever cause, may generally be stopped by putting a plug of lint into the nostrils; if this does not do, apply a

ACCIDENTS AND EMERGENCIES.

cold lotion to the forehead; raise the head, and place over it both arms, so that it will rest on the hands; dip the lint plug, slightly moistened, into some powdered gum arabic, and plug the nostrils again; or dip the plug into equal parts of powdered gum arabic and alum, and plug the nose. Or the plug may be dipped in Friar's balsam, or tincture of kino. Heat should be applied to the feet; and, in obstinate cases, the sudden shock of a cold key, or cold water poured down the spine, will often instantly stop the bleeding. If the bowels are confined take a purgative. Injections of alum solution from a small syringe into the nose will often stop hemorrhage.

VIOLENT SHOCKS will sometimes stun a person, and he will remain unconscious. Untie strings, collars, etc.; loosen anything that is tight, and interferes with the breathing; raise the head; see if there is bleeding from any part; apply smelling-salts to the nose, and hot bottles to the feet.

In Concussion, the surface of the body is cold and pale, and the pulse weak and small, the breathing slow and gentle, and the pupil of the eye generally contracted or small. You can get an answer by speaking loud, so as to arouse the patient. Give a little brandy and water, keep the place quiet, apply warmth, and do not raise the head too high. If you tickle the feet the patient feels it.

In Compression of the Brain from any cause, such as apoplexy, or a piece of fractured bone pressing on it, there is loss of sensation. If you tickle the feet of the injured person he does not feel it. You cannot arouse him so as to get an answer. The pulse is slow and labored; the breathing deep, labored, and snorting; the pupil enlarged. Raise the head, loosen strings or tight things, and send for a surgeon. If one cannot have a surgeon and send for a surgeon. and send for a surgeon. If one cannot be got at once, apply mustard poultices to the feet and thighs, leeches to the temples, and hot water to the feet.

CHOKING—When a person has a fish bone in the throat, insert the forefinger, press upon the root of the tongue, so as to induce vomiting: it this does not do, let him swallow a large piece of potato or soft bread; and if these fail,

give a mustard emetic.

FAINTING, HYSTERICS, ETC.—Loosen the garments, bathe the temples with water or eau-de-Cologne; open the window, admit plenty of fresh air, dash cold water on the face, apply hot bricks to the feet, and avoid bustle and exces-

sive sympathy.

Drowning—Attend to the following essential rules:—1. Lose no time. 2. Handle the body gently. 3. Carry the body face downwards, with the head gently raised, and never hold it up by the feet. 4. Send for medical assistance immediately, and in the meantime act as follows: 5. Strip the body; rub it dry, then wrap it in hot blankets, and place it in a warm bed in a warm room. 6. Cleanse away the froth and mucus from the nose and mouth. 7. Apply warm bricks, bottles, bags of sand, etc., to the armpits, between the thighs, and to the soles of the feet. 8. Rub the surface of the body with the hands inclosed in warm, dry worsted socks. 9. If possible, put the body into a warm bath. 10. To restore breathing, put the pipe of a common bellows into one nostril, carefully closing the other, and the mouth; at the same time drawing downwards, and pushing gently backwards, the upper part of the windpipe, to allow a more free admission of air; blow the bellows gently, in order to inflate the lungs, till the breast be raised a little; then set the mouth and noscrils free, and press gently on the chest; repeat this until signs of life appear. The body should be covered the moment it is placed on the table, except the face, and all the rubbing carried on under the sheet or blanket. When they can be obtained, a number of tiles or bricks should be made tolerably hot in the fire, laid in a row on the table, covered with a blanket, and the body placed in such a manner on them that their heat may enter the spine. When the patient revives, apply smelling-salts to the nose, give warm wine or brandy and water. Cautions.—1. Never rub the body with salt or spirits. 2. Never roll the body on casks. 3. Continue the remedies for twelve hours without ceasing.

HANGING—Loosen the cord, or whatever it may be by which the person has been suspended. Open the temporal artery or jugular vein, or bleed from the arm; employ electricity, if at hand, and proceed as for drowning, taking the

additional precaution to apply eight or ten leeches to the temples.

POISONS AND THEIR ANTIDOTES.

APPARENT DEATH FROM DRUNKENNESS—Raise the head; loosen the clothes, maintain warmth of surface, and give a mustard emetic as soon as the person can swallow.

APOPLEXY AND FITS GENERALLY—Raise the head; loosen all tight clothes, strings, etc.; apply cold lotions to the head, which should be shaved;

apply leeches to the temples, bleed, and send for a surgeon.

SUFFOCATION FROM NOXIOUS GASES, ETC.—Remove to the fresh air; dash cold vinegar and water in the face, neck, and breast; keep up the warmth of the body; if necessary, apply mustard poultices to the soles of the feet and to the spine, and try artificial respirations as in drowning, with electricity.

LIGHTNING AND SUNSTROKE—Treat the same as apoplexy.

POISONS AND THEIR ANTIDOTES.

Always send immediately for a medical man. Save all fluids vomited, and articles of food, cups, glasses, etc., used by the

patient before taken ill, and lock them up.

As a rule give emetics after poisons that cause sleepiness and raving;—chalk, milk, eggs, butter, and warm water, or oil, after poisons that cause vomiting and pain in the stomach and bowels, with purging; and when there is no inflammation about the throat, tickle it with a feather to excite vomiting.

Vomiting may be caused by giving warm water, with a teaspoonful of mustard to the tumblerful, well stirred up. Sulphate of zinc (white vitriol) may be used in place of the mustard, or powdered alum. Powder of ipecacuanha, a teaspoonful rubbed up with molasses, may be employed for children. Tartar emetic should never be given, as it is excessively

depressing, and uncontrolable in its effects. The stomach pump can only be used by skillful hands, and even then with caution.

Opium and other Narcetics—After vomiting has occurred, cold water should be dashed over the face and head. The patient must be kept awake, walked about between two strong persons, made to grasp the handles of a galvanic battery, dosed with strong coffee, and vigorously slapped. Belladonna is an antidote for opium and for morphia, etc., its active principles; and, on the other hand, the latter counteract the effects of belladonna. But a knowledge of medicine is necessary for dealing with these articles.

Strychnia-After emetics have been freely and successfully given, the patient should be allowed to breathe the vapor of sulphuric ether, poured on a handkerchief and held to the face, in such quantities as to keep down the tendency to convulsions. Bromide of potassium, twenty grains at a dose, dissolved in syrup, may be

given every hour.

Alcoholic Poisoning should be combated by emetics, of which the sulphate of zinc, given as above directed, is the best. After that, strong coffee internally, and stimulation by heat externally, should be used.

Acids are sometimes swallowed by mistake. Alkalies, lime water, magnesia, or common chalk mixed with water, may be freely given, and afterward mucilaginous

drinks, such as thick gum water or flaxseed tea.

Alkalies are less frequently taken in injurious strength or quantity, but sometimes children swallow lye by mistake. Common vinegar may be given freely, and then castor or sweet oil in full doses—a tablespoonful at a time, repeated every half hour

Nitrate of silver when swallowed is neutralized by common table salt freely given

in solution in water.

DOSES OF MEDICINE.

The salts of mercury or arsenic (often kept as bedbug poison), which are powerful irritants, are apt to be very quickly fatal. Milk or the whites of eggs may be freely given, and afterward a very thin paste of flour and water. In these cases an

emetic is to be given after the poison is neutralized.

Phosphorus paste, kept for roach poison or in parlor matches, is sometimes eaten by children, and has been willfully taken for the purpose of suicide. It is a powerful irritant. The first thing to be done is to give freely of magnesia and water; then to give mucilaginous drinks, as flaxseed tea, gum water or sassafras pith and water; and lastly to administer finely-powdered bone-charcoal, either in pill or in mixture with water.

In no case of poisoning should there be any avoidable delay in obtaining the advice of a physician, and, meanwhile, the friends or bystanders should endeavor to find out exactly what has been taken, so that the treatment adopted may be as prompt and effective as possible.

DOSES OF MEDICINE.

NAME OF DRUG.	DOSE.	NAME OF DRUG.	DOSE.
Aloes Anise Oil. Aqua Ammonia(dilute) Balsam Copaiba Balsam of Fir. Bismuth. Bromide of Potassium. Buchu Leaves. Calomel (as alterative) Castor Oil. Citrate of Iron. Citrate Iron & Quinine Cream of Tartar. Dover's Powder. Elecampane. Epsom Salts. Gallic Acid. Iodide of Potassium. Kino. Mandrake. Mercury with Chalk. Morphine. Muriate of Ammonia. Opium. Paregoric. Peppermint Essence. Pepsin Quinine. Rochelle Salts. Rhubárb. Saltpetre. Samonin. Syrup of Squills.	5 to 15 drops. 10 to 30 drops. 10 to 40 drops. 3 to 10 drops. 5 to 40 grains. 5 to 40 grains. 20 to 40 grains. 1-12 to 1 grain. 1 to 8 teasp'fuls. 2 to 5 grains. 3 to 8 grains. ½ to 3 teasp'fuls. 5 to 10 grains. 20 to 60 grains. ½ to 1 ounce. 5 to 10 grains. 2 to 10 grains. 10 to 30 grains. 10 to 30 grains. 15 to 20 grains. 16 to ½ grain. 17 to 20 grains. 18 to ¼ grain. 19 to 20 grains. 19 to 20 grains. 10 to 30 drops. 11 to 5 grains. 12 to 1 ounce. 15 to 30 drops. 11 to 5 grains. 15 to 20 grains. 16 to 10 grains. 17 to 10 grains. 18 to 10 grains. 19 to 10 grains. 10 to 10 grains. 10 to 10 grains. 11 to 10 grains. 12 to 10 grains. 15 to 20 grains. 16 to 10 grains. 17 to 10 grains. 18 to 10 grains. 19 to 10 grains. 10 to 10 grains. 10 to 10 grains. 11 to 10 grains. 11 to 10 grains. 12 to 10 grains. 15 to 10 grains. 16 to 10 grains. 17 to 10 grains. 18 to 10 grains. 19 to 10 grains. 10 to 10 grains.	Tannic Acid Tinct. of Aconite Root Aloes Asafetida Belladona Bloodroot Columbo Camphor Cayenne Castor Catechu Cinch. Comp. Colchicum Digitalis Ginger Gentian Com Guaiac Kino Lobelia. Muriate Iron. Myrrh Nux Vomica. Opium (Laudanum) Ahubarb KSenna Cinch. Comp. Colchicum Colc	to 2 teasp'fuls. to 2 teasp'fuls. to 5 grains. to 5 drops. to 8 teasp'fuls. ½ to 1 teasp'ful. to 20 drops. ¼ to ½ teasp'ful. to 2 teasp'fuls. ½ to 1 teasp'ful. ½ to 2 teasp'fuls. ½ to 2 teasp'fuls. ½ to 2 teasp'fuls. ½ to 4 teasp'fuls. ½ to 2 teasp'fuls. ½ to 2 teasp'fuls. ½ to 1 teasp'ful. ½ to 1 teasp'ful. ½ to 1 teasp'ful. ½ to 2 teasp'fuls. 10 to 25 drops. 10 to 25 drops. 11 to 4 teasp'fuls. 12 to 1 teasp'fuls. 13 to 4 teasp'fuls. 14 to 1 teasp'fuls. 15 to 10 drops.
" Iodide of Iron	15 to 30 drops. 1 to 6 teasp'fnls.	(Emetic).	2 to 8 teasp'fuls.
			10 to 30 drops.
Tab	le of Propo	rtionate Doses.	
Age, years Doses	\dots 80 65	50 25-40 20 16	12 8 5 2
Doses	$\frac{5}{8}$ $\frac{3}{4}$	7 1 7 3	5 1 3 1
Age, months.	0 4	8 4	19 6 9 1
Doses			1 1 1 1
	* * * * * * * * * * * * * *		· 5 8 T5 T4

Largest Safe Doses of Poisonous Drugs.

Every person should know the largest doses, which is safe to take, of active medicines. The following table shows the largest doses admissible, in grammes, and also the equivalent in grains for solids, and in minims for liquids. The doses are expressed in fractions, thus: 1-13, 1-64, meaning one-thirteenth, one-sixty-fourth. In non-professional hands it is the safest plan to strictly observe the rule of never giving the maximum dose of any medicine:

Medicines.	Grammes.	Grains.	Medicines.	Grammes.	Grains.
Arsenious Acid		1-13	Ext. Opium		$1\frac{1}{2}$
Acid, Carbolic		3/4			
" Hydrocyanic.		1	Fowler's Solution.		
Aconita			Lead, Sugar of		9-10
Aconite Root		21/4	Mercury, Corrosive	Chlor03	9-20
Arsenic, Iodide		3/8	" Red Iod	ide03	9-20
		1-64	Morphia and its Sa		9-20
Atropia		1-64	Nitrate Silver		
Atropia Sulph		1%	Oil, Croton		9-10
Barium, Chlor		3	Opium		01.4
Belladonna, Herb.					- 0.0
Root		$1\frac{1}{2}$	Phosphorus		
Codia	60.	3/4	Potassa, Arsenite		
Conia		1-64			417
Digitalis		$\frac{41}{2}$	Santonine		
Ext. Aconite Leaves	s	$1\frac{1}{2}$	Soda, Arsenite		
Root.		3/8	Strychnia and Salt	s	1-6
" Belladonna		1/2	Tartar Emetic		3
" Cannabis India		$1\frac{1}{2}$		00	5 1-13
" Conium		23/4	Veratrum Viride		$\frac{4\frac{1}{2}}{2}$
" Digitalis	2	3	Zinc, Chloride	.01	5 2-9
" Nux Vomica, A	Alc05	3/4	" Valeriante		9-10

Relative Value of Food (Beef par)

Oysters, 22; milk, 24: lobsters, 50; cream, 56; codfish, 68; eggs, 72; turbot, 84; mutton, 87; venison, 89; veal, 92; fowl, 94; herring, 100; beef, 100; duck, 104; salmon, 108; pork, 116; butter, 124; cheese, 155.

Percentage of Carbon in Food.

Cabbage, 3; beer, 4; carrots, 5; milk, 7; parsnips, 8; fish, 9; potatoes, 12; eggs, 16; beef, 27; bread, 27; cheese, 36; peas, 36; rice, 38; corn, 38; biscuit, 42; oatmeal, 42; sugar, 42; flour, 46; bacon, 54; cocoa, 69; butter, 79.

Foot-tons of Energy Per Ounce of Food.

Cabbage, 16; carrots, 20; milk, 24; ale, 30; potatoes, 38; porter, 42; beef, 55; egg, 57; ham, 65; bread, 83; egg (yolk), 127; sugar, 130; rice, 145; flour, 148; arrowroot, 151; oatmeal, 152; cheese, 168; butter, 281.

Loss of Meat in Cooking.

100 lbs. raw beef	= 67 lb	is. roast	100 lbs. raw fowl	= 80 roast
100 "	= 74 '	boiled	100 lbs. raw fowl 100 " " 100 " raw fish	= 87 boiled = 94 boiled
400 " raw mutton	= 75 '	roast	100 " raw fish	= 94 Dolleu

The Percentage of Starch.

In common grains is as follows, according to Prof. Yeomans: Rice flour, 84 to 85; Indian meal, 77 to 80; oatmeal, 70 to 80; wheat flour, 39 to 77; barley flour, 67 to 70; rye flour, 50 to 61; buckwheat, 52; peas and beans, 42 to 43; potatoes (75 per cent. water), 13 to 15.

The Degrees of Sugar.

In various fruits are: Peach, 1.6; raspberry, 4.0; strawberry, 5.7; currant, 6.8; gooseberry, 7.2; apple, 7.9; mulberry, 9.2; pear, 9.4; cherry, 10.8; grape, 14.9.

Digestion of Various Foods.

Easy of Digestion—Arrowroot, asparagus, cauliflower, baked apples, oranges, grapes, strawberries, peaches.

Moderately Digestible—Apples, raspberries, bread, puddings.

thubarb, chocolate, coffee, porter.

Hard to Digest—Nuts, pears, plums, cherries, cucumbers, onions, carrots, parsnips.

TIME REQUIRED FOR DIGESTION.

Beans, pod, boiled	30 00 30 00 30 00 45 30 15 30 00 45 00 30 30 00 45 00 00 30 00 00 00 00 00 00 00 00 00 00	Mutton, roast. "broiled. "boiled. Oysters, raw. "roast. "stewed. Pork, fat and lean, roast. "boiled. "raw. Potatoes, boiled. "bakcd. Rice boiled. "bakcd. Rice boiled. "chicken boiled. "oyster" Tapioca, boiled. Tripe, soused, boiled. Trout, fresh, boiled or fried. Turkey, domestic, roast. "wild, roast. Turnips, boiled. Veal, fresh, broiled.	3 3 3 3 3 1 1 4 3 2 1 1 3	15 00 00 55 15 30 15 15 00 30 30 00 45 00 00 00 00 00 00 00 00 00 00 00 00 00
Milk, boiled		'' fresh, fried	4	

Fat, Water and Muscle Properties of Food.

Cucumbers 97.0 Turnips 94.4 Cabbage 90.0 Milk, cows' 86.0 Apples 84.0 Eggs, yolk of 79.0 Potatoes 75.2 Veal 68.5 Eggs, white of 53.0 Lamb 50.5	1.5 4.0 5.0 5.0 15.0 1.4 10.1 17.0 11.0	1.0 4.0 5.0 8.0 10.0 27.0 22.5 1.65 .0 35.0	100 PARTS. Water. Mutton. 44.0 Pork. 38.5 Beans. 14.8 Buckwheat. 14.2 Barley. 14.0 Corn. 14.0 Peas. 14.0 Wheat. 14.0 Oats. 13.6 Rice. 13.5	12.5 10.00 24.0 8.6 15.0 12.0 23.4 14.6 17.0 6.5	Fat. 40.0 50.9 57.7 75.4 68.8 73.0 60.0 69.4 66.4 79.5
	11.0 15.0	35.0 30.0	Rice13.5	6.5 65.0	

Percentage of Nutrition in Various Articles of Food.

Raw cucumbers, 2; raw mellons, 3; boiled turnips, $4\frac{1}{2}$; milk, 7; cabbage, $7\frac{1}{2}$; currants, 10; whipped eggs, 13; beets, 14; apples, 16; peaches, 20; boiled codfish, 21; broiled venison, 22; potatoes, 22 $\frac{1}{2}$; fried veal, 24; roast pork, 24; roast poultry, 26; raw beef, 26; raw grapes, 27; raw plums, 29; broiled mutton, 30; oatmeal porridge, 75; rye bread, 79; boiled beans, 87; boiled rice, 88; barley bread, 88; wheat bread, 90; baked corn bread, 91; boiled barley, 92; butter, 93; boiled peas, 93; raw oils, 94.

CANARY BIRDS.

HOW TO KEEP THEM HEALTHY AND IN GOOD SONG.

Place the cage so that no draught of air can strike the bird. Give nothing to healthy birds but rape, hemp, canary seed, water, cuttle-fish bone, and gravel paper or sand on floor of cage.

A bath three times a week.

The room should not be overheated.

When moulting keep warm and avoid all draughts of air.

Give plenty of German summer rape seed. A little hard boiled egg mixed with cracker, grated fine, once or twice a week, is excellent.

Feed at a certain hour in the morning.

DISEASES AND CURES.

Husk or Asthma. The curatives are aperients, such as endive, water cresses, bread and milk and red pepper.

Pip. Mix red pepper, butter and garlic and swab out the

Sweating. Wash the hen in salt and water, and dry rapidly.

Costiveness. Plenty of green food and fruit.

Obstruction of the Rump Gland. Pierce with a needle.

Press the inflamed matter out, and drop fine sugar over the wound.

Lice. Keep a saucer of fresh water in the cage and the bird

will free itself.

Overgrown Claws or Beak. Pare carefully with a sharp

Moulting. Give plenty of good food and keep warm. Saf-

fron and a rusty nail put in their drinking water is excellent.

Loss of Voice. Feed with paste of bread, lettuce and rape seed with yoke of egg. Whisky and sugar is an excellent remedy.

What a Horse Can Draw.

On metal rails a horse can draw:

One and two-thirds times as much as on asphalt pavement. Three and one-third times as much as on good Belgian blocks.

Five times as much as on ordinary Belgian blocks. Seven times as much as on good cobble-stone. Thirteen times as much as on ordinary cobble-stone.

Twenty times as much as on an earth road.

Forty times as much as on sand.

A modern compilation of engineering maxims states that a horse can drag, as compared with what he can carry on his back, in the following proportions: On the worst earthen road, three times more; on a good macadamized road, nine; on plank, twenty-five; on a stone trackway, thirty-three; and on a good railway, fiftyfour times as much.

Test for Glue.

The following simple and easy test for glue is given: A weighed piece of glue (say one-third of an ounce) is suspended in water for twenty-four hours, the temperature of which is not above fifty degrees Fahrenheit. The coloring material sinks, and the glue swells from the absorption of the water. The glue is then taken out and weighed; the greater the increase in weight the better the glue. If it then be dried perfectly and weighed again, the weight of the coloring matter can be learned from the difference between this and the original weight. 253

USEFUL RECIPES, TRADE SECRETS, ETC.

Tootnache Cure. Compound tinct. benzoin is said to be one of the most certain and speedy cures for toothache; pour a few drops on cotton, and press at once into the diseased cavity, when the pain will almost instantly cease.

Toothache Tincture. Mix tannin, 1 scruple; mastic, 3 grains;

ether, 2 drams. Apply on cotton wool, to the tooth, previously dried.

Chlorate of potash, ½ dram; mint Charcoal Tooth Paste. water, 1 ounce. Dissolve and add powdered charcoal, 2 ounces; honey, 1 ounce.

Excellent Mouth Wash. Powdered white Castile soap, 2 drams; alcohol, 3 ounces; honey, 1 ounce; essence or extract jasmine, 2 drams.

Dissolve the soap in alcohol and add honey and extract.

This preparation is used by Removing Tartar from the Teeth. dentists. Pure muriatic acid, one ounce; water, one ounce; honey, two ounces; mix thoroughly. Take a toothbrush, and wet it freely with this preparation, and briskly rub the black teeth, and in a moment's time they will be perfectly white; then immediately wash out the mouth well with water, that the acid may not act on the enamel of the teeth. This should be done only occasionally.

Bad Breath. Bad breath from catarrh, foul stomach, or bad teeth, may be temporarily relieved by diluting a little bromo chloralum with eight or ten parts of water, and using it as a gargle, and swallowing a few drops before going out. A pint of bromo chloralum costs fifty cents, but a small vial will last a

long time.

Good Tooth Powder. Procure, at a druggist's, half an ounce of powdered orris root, half an ounce of prepared chalk finely pulverized, and two or three small lumps of Dutch pink. Let them all be mixed in a mortar, and pounded

together. The Dutch pink is to impart a pale reddish color. Keep it in a close box.

Another Tooth Powder. Mix together, in a mortar, half an ounce of red Peruvian bark, finely powdered; a quarter of an ounce of powdered

myrrh; and a quarter of an ounce of prepared chalk.

A Safe Depilatory. Take a strong solution of sulphuret of barium, and add enough finely powdered starch to make a paste. Apply to the roots of the hair and allow it to remain on a few minutes, then scrape off with the back edge of a knife blade, and rub with sweet oil.

Quick Depilatory for Removing Hair. Best slacked lime, 6 ounces; orpiment, fine powder, I ounce. Mix with a covered sieve and preserve in a dry place in closely stoppered bottles. In using mix the powder with enough water to form a paste, and apply to the hair to be removed. In about five minutes, or as soon as its caustic action is felt on the skin, remove, as in shaving, with an ivory or bone paper knife, wash with cold water freely, and apply cold cream.

Tricopherous for the Hair. Castor oil, alcohol, each I pint; tinct. cantharides, one ounce; oil bergamot, ½ ounce; alkanet coloring, to color as wished. Mix and let it stand forty-eight hours, with occasional shaking, and then

filter.

Liquid Shampoo. Take bay rum, 2½ pints; water, ½ pint; glycerine, 1 ounce; tinct. cantharides, 2 drams; carbonate of ammonia, 2 drams borax, ½ ounce; or take of New England rum, 1½ pints; bay rum, 1 pint; water ½ pint; glycerine, 1 ounce; tinct. cantharides, 2 drams; ammon. carbonate, 2 drams; borax, ½ ounce; the salts to be dissolved in water and the other ingredients to be added gradually.

Cleaning Hair Brushes. Put a teaspoonful or dessertspoonful of aqua ammonia into a basin half full of water, comb the loose hairs out of the brush, then agitate the water briskly with the brush, and rinse it well with clear

Hair Invigorator. Bay rum, two pints; alcohol, one pint; castor oil, one ounce; carb. ammonia, half an ounce; tincture of cantharides, one ounce. Mix them well. This compound will promote the growth of the hair and prevent it from falling out.

For Dandruff. Take glycerine, four ounces; tincture of cantharides, five ounces; bay rum, four ounces; water, two ounces. Mix, and apply once

a day, and rub well down the scalp.

Mustache Grower. Simple cerate, I ounce; oil bergamot, 10 minims; saturated tinct. of cantharides, 15 minims. Rub them together thoroughly, or melt the cerate and stir in the tincture while hot, and the oil as soon as it is nearly cold, then run into molds or rolls. To be applied as a pomade, rubbing in at the roots of the hair. Care must be used not to inflame the skin by too frequent application.

Razor-strop Paste. Wet the strop with a little sweet oil, and

apply a little flour of emery evenly over the surface.

Shaving Compound. Half a pound of plain white soap, dissolved in a small quantity of alcohol, as little as can be used; add a tablespoonful of pulverized borax. Shave the soap and put it in a small tin basin or cup; place it on the fire in a dish of boiling water; when melted, add the alcohol, and remove

from the fire; stir in oil of bergamot sufficient to perfume it.

Cure for Prickly Heat. Mix a large portion of wheat bran with either cold or lukewarm water, and use it as a bath twice or thrice a day. Children who are covered with prickly heat in warm weather will be thus effectually relieved from that tormenting eruption. As soon as it begins to appear on the neck, face, or arms, commence using the bran water on these parts repeatedly through the day, and it may probably spread no farther. If it does, the bran water bath will certainly cure it, if persisted in.

To Remove Corns from Between the Toes. These corns are generally more painful than any others, and are frequently situated as to be almost inaccessible to the usual remedies. Wetting them several times a day with hartshorn

will in most cases cure them. Try it.

Superior Cologne Water. Oil of lavender, two drams; oil of rosemary, one dram and a half; orange, lemon and bergamot, one dram each of the oil; also two drams of the essence of musk, attar of rose ten drops, and a pint of proof spirit. Shake all together thoroughly three times a day for a week.

Inexhaustible Smelling Salts. Sal tartar, three drams; muriate ammonia, granulated, 6 drams; oil neroli, 5 minims; oil lavender flowers, 5 minims; oil rose, 3 minims; spirits ammonia, 15 minims. Put into the pungent a small piece of sponge filling about one-fourth the space, and pour on it a due proportion of the oils, then put in the mixed salts until the bottle is three-fourths full, and pour

on the spirits of ammonia in proper proportion and close the bottle.

Volatile Salts for Pungents. Liquor ammon., fort, I pint, oil lavender flowers, I dram, oil rosemary, fine, I dram, oil bergamot, ½ dram, oil peppermint, IO minims. Mix thoroughly and fill pungents or keep in well stoppered bottle. Another formula is, sesqui-carbonate of ammonia, small pieces, IO ounces, concentrated liq. ammonia, 5 ounces. Put the sesqui-carb. in a wide mouth jar with air-tight stopper, perfume the liquor ammonia to suit and pour over the carbonate, close tightly the lid and place in a cool place, stir with a stiff spatula every other day for a week, and then keep it closed for two weeks, or until it becomes hard, when it is ready for use.

Paste for Papering Boxes. Boil water and stir in batter of wheat or rye flour. Let it boil one minute, take off and strain through a colander. Add, while boiling, a little glue or powdered alum. Do plenty of stirring while the

paste is cooking, and make of consistency that will spread nicely.

Aromatic Spirit of Vinegar. Acetic acid, No. 8, pure, 8 ounces; camphor, ½ ounce. Dissolve and add oil lemon, oil lavender flowers, each two drams; oil cassia, oil cloves, ½ dram each. Thoroughly mix and keep in well stoppered bottle.

Rose-Water. Preferable to the distilled for a perfume, or for culinary purposes: Attar of rose, twelve drops; rub it up with half an ounce of white sugar and two drams carbonate magnesia, then add gradually one quart of

water and two ounces of proof spirit, and filter through paper.

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Bay Rum. French proof spirit, one gallon; extract bay, six ounces. Mix and color with caramel; needs no filtering.

Fine Lavender Water. Mix together, in a clean bottle, a pint of inodorous spirit of wine, an ounce of oil of lavender, a teaspoonful of oil of berga-

mot, and a tablespoonful of oil of ambergris.

The Virtues of Turpentine. After a housekeeper fully realizes the worth of turpentine in the household, she is never willing to be without a supply of it. It gives quick relief to burns, it is an excellent application for corns, it is good for rheumatism and sore throats, and it is the quickest remedy for convulsions or fits. Then it is a sure preventive against moths by just dropping a trifle in the bottom of drawers, chests and cupboards, it will render the garments secure from injury during the summer. It will keep ants and bugs from closets and store-rooms by putting a few drops in the corners and upon the shelves it is sure destruction to bedbugs, and will effectually drive them away from their haunts if thoroughly applied to all the joints of the bedstead in the spring cleaning time, and injures neither furniture nor clothing. A spoonful of it added to a pail of warm water is excellent for cleaning paint. A little in suds washing days lightens laundry labor.

A Perpetual Paste is a paste that may be made by dissolving an ounce of alum in a quart of warm water. When cold, add as much flour as will make it the consistency of cream, then stir into it half a teaspoonful of powdered resin, and two or three cloves. Boil it to a consistency of mush, stirring all the time. It will keep for twelve months, and when dry may be softened with warm water.

Paste for Scrap Books. Take half a teaspoonful of starch, same of flour, pour on a little boiling water, let it stand a minute, add more water, stir and cook it until it is thick enough to starch a shirt bosom. It spreads smooth, sticks well and will not mold or discolor paper. Starch alone will make a very good paste.

A Strong Paste. A paste that will neither decay nor become moldy. Mix good clean flour with cold water into a thick paste well blended together, then add boiling water, stirring well up until it is of a consistency that can be easily and smoothly spread with a brush; add to this a spoonful or two of brown sugar, a little corrosive sublimate and about half a dozen drops of oil of lavender, and you will have a paste that will hold with wonderful tenacity.

A Brilliant Paste. A brilliant and adhesive paste, adapted to fancy articles, may be made by dissolving caseine precipitated from milk by acetic

acid and washed with pure water in a saturated solution of borax.

A Sugar Paste. In order to prevent the gum from cracking, to ten parts by weight of gum arabic and three parts of sugar, add water until the desired consistency is obtained. If a very strong paste is required, add a quantity of flour equal in weight to the gum, without boiling the mixture. The paste improves in strength when it begins to ferment.

Tin Box Cement. To fix labels to tin boxes either of the following will answer: 1. Soften good glue in water, then boil it in strong vinegar, and thicken the liquid while boiling with fine wheat flour, so that a paste results. 2. Starch paste, with which a little Venice turpentine has been incorporated while warm.

Paper and Leather Paste. Cover four parts, by weight, of glue, with fifteen parts of cold water, and allow it to soak for several hours, then warm moderately till the solution is perfectly clear, and dilute with sixty parts of boiling water, intimately stirred in. Next prepare a solution of thirty parts of starch in two hundred parts of cold water, so as to form a thin homogeneous liquid, free from lumps, and pour the boiling glue solution into it with thorough stirring, and a the same time keep the mass boiling.

Commercial Mucilage. The best quality of mucilage in the market is made by dissolving clear glue in equal volumes of water and strong vinegar, and adding one-fourth of an equal volume of alcohol, and a small quantity of a solution of alum in water. Some of the cheaper preparations offered for sale are merely boiled starch or flour, mixed with nitric acid to prevent their gelatinizing.

Acid-Proof Paste. A paste formed by mixing powdered glass with a concentrated solution of silicate of soda makes an excellent acid-proof cement.

Paste to Fasten Cloth to Wood. Take a plump pound of wheat flour, one tablespoonful of powdered resin, one tablespoonful of finely powdered alum, and rub the mixture in a suitable vessel, with water, to a uniform, smooth paste; transfer this to a small kettle over a fire, and stir until the paste is perfectly homogeneous without lumps. As soon as the mass has become so stiff that the stirrer remains upright in it, transfer it to another vessel and cover it up so that no skin may form on its surface.

This paste is applied in a very thin layer to the surface of the table; the cloth, or leather, is then laid and pressed upon it, and smoothed with a roller. The ends are cut off after drying. If leather is to be fastened on, this must first be moistened with water. The paste is then applied, and the leather rubbed smooth with a

cloth.

Paste for Printing Office. Take two gallons of cold water and one quart wheat flour, rub out all the lumps, then add one-fourth pound of finely pulverized alumand boil the mixture for ten minutes, or until a thick consistency is reached. Now add one quart of hot water and boil again, until the paste becomes a pale brown color, and thick. The paste should be well stirred during both processes of cooking. Paste thus made will keep sweet for two weeks and prove very adhesive.

To Take Smoke Stains from Walls. An easy and sure way to remove smoke stains from common plain ceilings is to mix wood ashes with the whitewash just before applying. A pint of ashes to a small pail of whitewash is suf-

ficient, but a little more or less will do no harm.

To Remove Stains from Broadcloth. Take an ounce of pipe clay, which has been ground fine, mix it with twelve drops of alcohol and the same quantity of spirits of turpentine. Whenever you wish to remove any stains from cloth, moisten a little of this mixture with alcohol and rub it on the spots. Let it remain till dry, then rub it off with a woolen cloth, and the spots will disappear.

To Remove Red Stains of Fruit from Linen. Moisten the cloth and hold it over a piece of burning sulphur, then wash thoroughly, or else the

spots may reappear.

To Remove Oil Stains. Take three ounces of spirits of turpentine and one ounce of essence of lemon, mix well, and apply it as you would any other scouring drops. It will take out all the grease.

Iron Stains may be removed by the salt of lemons. Many stains may be removed by dipping the linen in sour buttermilk, and then drying it

in a hot sun; wash it in cold water, repeat this three or four times.

To Remove Oil Stains from Wood. Mix together fuller's earth and soap lees, and rub it into the boards. Let it dry and then scour it off with some strong soft soap and sand, or use lees to scour it with. It should be put on hot, which may easily be done by heating the lees.

To Remove Tea Stains. Mix thoroughly soft soap and salt—say a tablespoonful of salt to a teacupful of soap, rub on the spots, and spread the cloth on the grass where the sun will shine on it. Let it lie two or three days, then wash. If the spots are wet occasionally while lying on the grass, it will hasten the bleach-

ing.

To Remove Stains from Muslin. If you have stained your muslin or gingham dress, or your white pants with berries, before wetting with anything else, pour boiling water through the stains and they will disappear. Before fruit juice dries it can often be removed by cold water, using a sponge and towel if necessary.

To Remove Acid Stains. Stains caused by acids may be removed by tying some pearlash up in the stained part; scrape some soap in cold, soft

water, and boil the linen until the stain is gone.

To Disinfect Sinks and Drains. Copperas dissolved in water, one-fourth of a pound to a gallon, and poured into a sink and water drain occasionally, will keep such places sweet and wholesome. A little chloride of lime, say half a pound to a gallon of water, will have the same effect, and either of these costs but a trifle.

A preparation may be made at home which will answer about as well as the chloride of time. Dissolve a bushel of salt in a barrel of water, and with the salt water slack a barrel of lime, which should be made wet enough to form a thin paste or wash.

To Disinfect a Cellar. A damp, musty cellar may be sweetened by sprinkling upon the floor pulverized copperas, chloride of lime, or even common lime. The most effective means I have ever used to disinfect decaying vegetable matter is chloride of lime in solution. One pound may be dissolved in two gallons of water. Plaster of Paris has also been found an excellent absorbent of noxious odors. If used one part with three parts of charcoal, it will be found still better.

How to Thaw Out a Water Pipe. Water pipes usually freeze up when exposed, for inside the walls, where they cannot be reached, they are or should be packed to prevent freezing. To thaw out a frozen pipe, bundle a newspaper into a torch, light it, and pass it along the pipe slowly. The ice will yield to this much quicker than to hot water or wrappings of hot cloths, as is the common

practice.

To Prevent Mold. A small quantity of carbolic acid added to paste, mucilage, and ink, will prevent mold. An ounce of the acid to a gallon of whitewash will keep cellars and dairies from the disagreeable odor which often taints milk and meat kept in such places.

Economical Fire Kindler. One may be made by dipping corn

cobs in a mixture of melted resin and tar, and drying.

Thawing Frozen Gas Pipe. Mr. F. H. Shelton says: "I took off from over the pipe some four or five inches, just a crust of earth, and then put a couple of bushels of lime in the space, poured water over it, and slacked it, and then put canvas over that, and rocks on the canvas, so as to keep the wind from getting underneath. Next morning, on returning there, I found that the frost had been drawn out from the ground for nearly three feet. You can appreciate what an advantage that was, for picking through frozen ground, with the thermometer below zero, is no joke. Since then we have tried it several times. It is an excellent plan if you have time enough to let the lime work. In the daytime you cannot afford to waste the time, but if you have a spare night in which to work, it is worth while to try it."

How to Test a Thermometer. The common thermometer in a panned iron case is usually inaccurate. To test the thermometer, bring water into the condition of active boiling, warm the thermometer gradually in the steam and then plunge it into the water. If it indicate a fixed temperature of two hundred

and twelve degrees, the instrument is a good one.

How to Keep Eggs Fresh. The great secret in keeping eggs consists in entirely excluding the air from the interior. The lining next to the shell is, when in its natural stage, impervious to air, and the albumen is calculated to sustain it, but dampness and heat will cause decay, and, if the egg is allowed to lie in one position, especially upon one side, the yolk sinks through the albumen and settles upon the lining, and, not possessing proper qualities for preserving the skin in a healthy condition, it dries, and air penetrates and begins the work of destruction. Where eggs are set upon their small ends, the yolk is much less liable to reach the lining of the shell. Where eggs are packed in a barrel, keg or bucket, it is a good plan to turn the whole quantity onto a different side once in a while.

Indelible Ink. An indelible ink that cannot be erased, even with acids, can be obtained from the following recipe; To good gall ink add a strong solution of Prussian blue dissolved in distilled water. This will form a writing fluid which cannot be erased without destruction of the paper. The ink will

write greenish blue, but afterward will turn black.

To Get a Broken Cork Out of a Bottle. If in drawing a cork, it breaks, and the lower part falls down into the liquid, tie a long loop in a bit of twine, or small cord, and put it in, holding the bottle so as to bring the piece of cork near to the lower part of the neck. Catch it in the loop, so as to hold it stationary.

You can then easily extract it with a corkscrew.

A Wash for Cleaning Silver. Mix together half an ounce of fine salt, half an ounce of powdered alum, and half an ounce of cream of tartar. Put them into a large white-ware pitcher, and pour on two quarts of water, and stir them frequently, till entirely dissolved. Then transfer the mixture to clean bottles, and cork them closely. Before using it, shake the bottles well. Pour some of the liquid into a bowl, and wash the silver all over with it, using an old, soft, fine linen cloth. Let it stand about ten minutes, and then rub it dry, with a buckskin. It will make the silver look like new.

To Remove the Odor from a Vial. The odor of its last contents may be removed from a vial by filling it with coldwater, and letting it stand in any

airy place uncorked for three days, changing the water every day.

To Loosen a Glass Stopper. The manner in which apothecaries loosen glass stoppers when there is difficulty in getting them out, is to press the thumb of the right hand very hard against the lower part of the stopper, and then give the stopper a twist the other way, with the thumb and forefinger of the left hand, keeping the bottle stiff in a steady position.

To Make Shoes or Boots Water-Proof. Melt together, in a pipkin, equal quantities of beeswax and mutton suet. While liquid rub it over the

leather, including the soles.

To Soften Boots and Shoes. Kerosene will soften boots and shoes which have been hardened by water, and render them as pliable as new.

To Remove Stains, Spots, and Mildew from Furniture. Take half a pint of ninety-eight per cent. alcohol, a quarter of an ounce each of pulverized resin and gum shellac, add half a pint of linseed oil, shake well and apply with a brush or sponge. Sweet oil will remove finger marks from varnished furniture, and kerosene from oiled furniture.

To Freshen Gilt Frames. Gilt frames may be revived by carefully dusting them, and then washing with one ounce of soda beaten up with the whites of three eggs. Scraped patches should be touched up with gold paint. Castile soap and water, with proper care, may be used to clean oil paintings. Other methods should not be employed without some skill.

To Fill Cracks in Plaster. Use vinegar instead of water to mix your plaster of Paris. The resultant mass will be like putty, and will not "set" for twenty or thirty minutes, whereas if you use water the plaster will become hard almost immediately, before you have time to use it. Push it into the cracks and smooth it off nicely with a tableknife.

To Toughen Lamp Chimneys and Glassware. Immerse the article in a pot filled with cold water, to which some common salt has been added. Boil the water well, then cool slowly. Glass treated in this way will resist any sudden change of temperature.

To Remove Paint from Window-Glass. Rub it well with hot,

sharp vinegar.

To Clean Stovepipe. A piece of zinc put on the live coals in

the stove will clean out the stovepipe.

To Brighten Carpets. Carpets after the dust has been beaten out may be brightened by scattering upon them cornmeal mixed with salt and then sweeping it off. Mix salt and meal in equal proportions. Carpets should be thoroughly beaten on the wrong side first and then on the right side, after which spots may be removed by the use of ox-gall or ammonia and water.

Kerosene Stains in Carpets may be removed by sprinkling buckwheat flour over the spot. If one sprinkling is not enough, repeat.

To Keep Flowers Fresh exclude them from the air. To do this wet them thoroughly, put in a damp box, and cover with wet raw cotton or wet newspaper, then place in a cool spot. To preserve bouquets, put a little saltpetre in the water you use for your bouquets, and the flowers will live for a fortnight.

To Preserve Brooms. Dip them for a minute or two in a kettle of boiling suds once a week and they will last much longer, making them tough and pliable. A carpet wears much longer swept with a broom cared for in this manner.

To Clean Brassware. Mix one ounce of oxalic acid, six ounces of rotten stone, all in powder, one ounce of sweet oil, and sufficient water to make a paste. Apply a small proportion, and rub dry with a flannel or leather. The liquid dip most generally used consists of nitric and sulphuric acids, but this is more corrosive.

Polish or Enamel for Shirt Bosoms is made by melting together one ounce of white wax and two ounces of spermaceti; heat gently and turn into a very shallow pan; when cold cut or break in pieces. When making boiled starch the usual way, enough for a dozen bosoms, add to it a piece of the polish the size of a hazel nut.

To Keep Out Mosquitoes. If a bottle of the oil of pennyroyal is left uncorked in a room at night, not a mosquito, nor any other blood-sucker, will be found there in the morning.

Destruction of Rats. The following recipe for the destruction originated with Dr. Ure, and is highly recommended as the best known means of getting rid of these most obnoxious and destructive vermin. Melt hog's lard in a bottle plunged in water, heated to about 150 degrees of Fahrenheit, introduce into it half an ounce of phospherus for every pound of lard, then add a pint of proof spirit, or whisky, cork the bottle firmly after its contents have been heated to 150 degrees, taking it at the same time out of the water, and agitate smartly until the phosphorus becomes uniformly diffused, forming a milky-looking liquid. This liquid, being cooled, will afford a white compound of phosphorus and lard, from which the spirit spontaneously separates, and may be poured off to be used again for the same purpose, but not for drinking, for none of it enters into the combination, but it merely serves to comminute the phosphorus, and diffuse it in very small particles through the lard. This compound, on being warmed very gently, may be poured out into a mixture of wheat flour and sugar, incorporated therewith, and then flavored with oil of rhodium, or not, at pleasure. The flavor may be varied with oil of aniseed, etc. This dough, being made into pellets, is to be laid into rat holes. By its luminousness in the dark, it attracts their notice, and, being agreeable to their palates and noses, it is readily eaten, and proves certainly fatal.

To Kill Cockroaches. A teacupful of well bruised plaster of Paris, mixed with double the quantity of oatmeal, to which a little sugar may be added, although this last named ingredient is not essential. Strew it on the floor, or into the chinks where they frequent.

Earwigs are very destructive insects, their favorite food being the petals of roses, pinks, dahlias, and other flowers. They may be caught by driving stakes into the ground, and placing on each an inverted flower pot, for the earwigs will climb up and take refuge under the pot, when they may be taken out and killed. Clean bowls of tobacco pipes, placed in like manner on the tops of smaller sticks, are very good traps, or very deep holes may be made in the ground with a crowbar, into which they will fall, and may be destroyed by boiling water.

To Destroy Ants. Drop some quicklime on the mouth of their nest, and wash it in with boiling water, or dissolve some camphor in spirits of wine, then mix with water, and pour into their haunts, or tobacco water, which has been found effectual. They are averse to strong scents. Camphor, or a sponge saturated with creosote, will prevent their infesting a cupboard. To prevent their climbing up trees, place a ring of tar about the trunk, or a circle of rag moistened occasionally with creosote.

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To Prevent Moths. In the month of April or May, beat your fur garments well with a small cane or elastic stick, then wrap them up in linen, without pressing them too hard, and put betwixt the folds some camphor in small lumps; then put your furs in this state in boxes well closed. When the furs are wanted for use, beat them well as before, and expose them for twenty-four hours to the air, which will take away the smell of the camphor. If the fur has long hair, as bear or fox, add to the camphor an equal quantity of black pepper in powder.

To Get Rid of Moths. 1. Procure shavings of cedar wood, and

Inclose in muslin bags, which can be distributed freely among the clothes.

Procure shavings of camphor wood, and inclose in bags.
 Sprinkle pimento (allspice) berries among the clothes.
 Sprinkle the clothes with the seeds of the musk plant.

5. To destroy the eggs, when deposited in woolen cloths, etc., use a solution of acetate of potash in spirits of rosemary, fifteen grains to the pint.

Bed Bugs. Spirits of naphtha rubbed with a small painter's brush into every part of the bedstead is a certain way of getting rid of bugs. The mattress and binding of the bed should be examined, and the same process attended to, as they generally harbor more in these parts than in the bedstead. Ten cents' worth of naphtha is sufficient for one bed.

Bug Poison. Proof spirit, one pint; camphor, two ounces; oil of turpentine, four ounces; corrosive sublimate, one ounce. Mix. A correspondent says, "I have been for a long time troubled with bugs, and never could get rid of them by any clean and expeditious method, until a friend told me to suspend a small bag of camphor to the bed, just in the center, overhead. I did so, and the enemy was most effectually repulsed, and has not made his appearance since—not even for a reconnoissance!" This is a simple method of getting rid of these pests, and is worth a trial to see if it be effectual in other cases.

Mixture for Destroying Flies. Infusion of quassia, one pint; brown sugar, four ounces; ground pepper, two ounces. To be well mixed together,

and put in small, shallow dishes when required.

To Destroy Flies in a room, take half a teaspoonful of black pepper in powder, one teaspoonful of brown sugar, and one tablespoonful of cream, mix them well together, and place them in the room on a plate, where the flies are

troublesome, and they will soon disappear.

How to Destroy Insects. The Bureau of Entomology, Department of Agriculture, Washington, sends out the following, for use as insecticides on or about plants, etc.: London purple—To twenty pounds flour from one-quarter to one-half pound is added and well mixed. This is applied with a sifter or blower. With forty gallons of water one-quarter to one-half pound is mixed for spraying. Paris Green—With twenty pounds of flour from three-quarters to one pound is mixed and applied by sifting or by a blower. The same amount of the insecticide to forty gallons of water is used as a spray. Bisulphate of Carbon—For use in the ground a quantity is poured or injected among the roots that are being infected. Against insects damaging stored grain of museum material a small quantity is used in an air-tight vessel. Carbolic Acid—A solution of one part in 100 of water is used against parasites on domestic animals and their barns and sheds; also on the surface of plants and among the roots in the ground. Helebore—The powder is sifted on alone or mixed one part to twenty of flour. With one gallon of water one-quarter pound is mixed for spraying. Kerosene-Milk Emulsion—To one part milk add two parts kerosene, and churn by force pump or other agitator. The butter-like emulsion is diluted ad libitum with water. An easier method is to simply mix one part kerosene with eight of milk. Soap Emulsion—In one gallon hot water one-half pound whale oil soap is dissolved. This, instead of milk, is mixed to an emulsion with kerosene in the same manner and proportion as above. Pyrethrum, Persian Insect Powder—Is blown or sifted on dry, also applied in water one gallon to a tablespoonful of the powder, well stirred and then sprayed. Tobacco Decoction—This is made as strong as possible as a wash or spray to kill insect pests on animals and plants,

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WEIGHTS AND MEASURES.

TROY WEIGHT—24 grains make I pennyweight, 20 pennyweights make I ounce. By this weight, gold, silver and jewels only are weighed. The ounce and pound in this are same as in Apothecaries' weight.

APOTHECARIES' WEIGHT—20 grains make one scruple, 3

scrupies make 1 dram, 8 drams make 1 ounce, 12 ounces make 1 pound.

AVOIRDUPOIS WEIGHT—6 drams make I ounce, 16 ounces make one pound, 25 pounds make I quarter, 4 quarters make I hundredweight, 2,000 pounds make I ton.

DRY MEASURE—2 pints make I quart, 8 quarts make I peck,

4 pecks make 1 bushel, 36 bushels make 1 chaldron.

LIQUID OR WINE MEASURE—4 gills make I pint, 2 pints make I quart, 4 quarts make I gallon, 31½ gallons make I barrel, 2 barrelsmake I

hogshead.

TIME MEASURE—60 seconds make I minute, 60 minutes make I hour, 24 hours make I day, 7 days make I week, 4 weeks make I lunar month, 28, 29, 30 or 31 days make I calendar month (30 days make I month in computing interest), 52 weeks and I day, or I2 calendar months, make I year; 365 days, 5 hours, 48 minutes and 49 seconds make I solar year.

CIRCULAR MEASURE—60 seconds make I minute, 60 minutes make I degree, 30 degrees make I sign, 90 degrees make I quadrant, 4 quadrants or

360 degrees make 1 circle.

LONG MEASURE—DISTANCE—3 barleycorns 1 inch, 12 inches 1 foot, 3 feet 1 yard, 5½ yards 1 rod, 40 rods 1 furlong, 8 furlongs 1 mile.

CLOTH MEASURE—2¹/₄ inches I nail, 4 nails I quarter, 4 quarters I yard.

MISCELLANEOUS—3 inches one palm, 4 inches I hand, 6 inches I span, 18 inches I cubit, 21.8 inches I Bible cubit, 2½ feet I military pace.

SQUARE MEASURE—144 square inches I square foot, 9 square feet I square yard, 30 1/4 square yards I square rod, 40 square rods I rood, 4 roods I acre.

SURVEYORS' MEASURE—7.92 inches I link, 25 links I rod, 4 rods 1 chain, 10 square chains or 160 square rods 1 acre, 640 acres 1 square mile.

CUBIC MEASURE—1,728 cubic inches I cubic foot, 27 cubic feet I cubic yard, 128 cubic feet I cord (wood), 40 cubic feet I ton (shipping), 2,150.42 cubic inches I standard bushel, 268.8 cubic inches I standard gallon, I cubic foot four-fifths of a bushel.

METRIC WEIGHTS—10 milligrams I centigram, 10 centigrams I decigram, 10 decigrams I gram, 10 grams I dekagram, 10 dekagrams I hektogram, 10 hektograms I kilogram.

METRIC MEASURES—(One milliliter—Cubic centimeter.)—
10 milliliters 1 centiliter, 10 centiliters 1 deciliter, 10 deciliters 1 liter, 10 liters 1
dekaliter, 10 dekaliters 1 hektoliter, 10 hektoliters 1 kiloliter.

METRIC LENGTHS—10 millimeters I centimeter, 10 centimeters I decimeter, 10 decimeters I meters I dekameter, 10 dekameters I hektometer, 10 hektometers I kilometer.

Relative Value of Apothecaries' and Imperial Measure.

Apothecaries.	Impe		
1 gallon equals pints,	13 ounces, 2	drams,	23 minims
1 pint "	16 " 5	14	18 "
I fluid ounce equals	I " O	44	20 "
z fluid dram "	1	4.4	21/2 4

Handy Metric Tables.

The following tables give the equivalents of both the metric and common systems, and will be found convenient for reference:

		OXIMATE	ACCURATE
1	1 inch Clamath 3 2016	VALENT.	LQUIVALENT.
1	l inch[length]2 ¹ / ₂	cubic centimeters	2.539
ı	1 continueter	inch	. 0.909
1	i yaiu m	eter	0.014
1	1 meter (39.37 inches)	ird	1 002
Ī	1 100t	ntimeters	20.470
1	1 Kilometer (1,000 meters)	mile	0.691
1	1 mile 1/2	kilometers	7 600
1] gramme[weight]15½ g	rains	15.000
1	1 grain 0.066	1 gramme	0.064
1	1 kilogramme (1,000 grammes) 2.2	Dounds avoirdupois	0.004
1	1 pound avoirdupois	kilogramme	0.450
1	1 ounce avoirdupois (437½ grains)28½	grammer	0.403
í	1 ounce troy, or apothecary (480 grains)31 gra	grammes	28.349
i	1 cubic centimeter [bulk] 1 00	annines	31.103
1	1 cubic centimeter [bulk] 1.06	cubic inch	0.060
4	1 cubic inch	cubic centimeters	16.386
1	1 liter (1,000 cubic centimeters) 1 Un	nited States standard qu	iart 0.946
1	1 United States quart 1 lit	er	1 057
Ţ	I nuid ounce	cubic centimeters	
1	I nectare (10,000 square meters) [surface]. 21/3:	acres	2 471
1	1 acre	ectare	0.40

It may not be generally known that we have in the nickel five-cent piece of our coinage a key to the tables of linear measures and weights. The diameter of this coin is two centimeters, and its weight is five grammes. Five of them placed in a row will, of course, give the length of the decimeter; and two of them will weigh a decagram. As the kiloliter is a cubic meter, the key to the measure of length is also the key to the measures of capacity. Any person, therefore, who is fortunate enough to own a five-cent nickle, may carry in his pocket the entire metric system of weights and measures.

Handy Weights and Measures.

One quart of wheat flour is one pound. One quart of corn meal weighs eighteen ounces. One quart of butter, soft, weighs fourteen to sixteen ounces. One quart of brown sugar weighs from a pound to a pound and a quarter, according to dampness. One quart of white sugar weighs 2 pounds. Ten medium-sized eggs weigh one pound. A tablespoonful of salt is one ounce. Eight table-spoonfuls make a gill. Two gills or sixteen tablespoonfuls, are half a pint. Sixty drops are one teaspoonful. Four tablespoonfuls are one wineglassful. Twelve tablespoonfuls are one teacupful. Sixteen tablespoonfuls, or half a pint, are one tumblerful.

THE MEANING OF MEASURES—A square mile is equal to 640 acres. A square acre is 208.71 feet on one side. An acre is 43,560 square feet. A league, 3 miles. A span, 10% inches. A hand, 4 inches. A palm, 3 inches. A great cubit, 11 inches. A fathom, 6 feet. A mile, 5,280 feet.

DOMESTIC AND DROP MEASURES APPROXIMATED—A teaspoonful, one fluid dram 4 grams; a dessertspoonful, two fluid drams 3 grams; a tablespoonful, half fluid ounce 16 grams; a wineglassful, two fluid ounces 64 grams; a tumblerful, half pint 256 grams.

The original Mrs. Partington was a respectable old lady who lived at Sidmouth, in Devonshire, England. Her cottage was on the beach, and during a terrific storm (November, 1824) the sea rose to such a height as every and then to invade the old lady's residence. The old lady persistently mopped out the water with such help as she could command, which was compelled to retreat to an upper story.

PRACTICAL CALCULATIONS.

Short Cuts in Arithmetic—Handy Tables for Ready Reckoning.

To Ascertain the Weight of Cattle—Measure the girt close behind the shoulder, and the length from the fore part of the shoulder-blade along the back to the bone at the tail, which is in a vertical line with the buttock both in feet. Multiply the square of the girt, expressed in feet, by ten times the length, and divide the product by three; the quotient is the weight, nearly, of the fore quarters, in pounds avoirdupois. It is to be observed, however, that in very fat cattle the fore quarters will be about one-twentieth more, while in those in a very lean state they will be one-twentieth less than the weight obtained by the rule.

Rules for Measuring Corn in Crib, Vegetables, etc., AND HAY IN Mow—This rule will apply to a crib of any size or kind. Two cubic feet of good, sound, dry corn in the ear will make a bushel of shelled corn. To get, then, the quantity of shelled corn in a crib of corn in the ear, measure the length, breadth and height of the crib, inside the rail; multiply the length by the breadth and the product by the height, then divide the product by two, and you have the number of bushels of shelled corn in the crib.

To find the number of bushels of apples, potatoes, etc., in a bin, multiply the length, breadth and thickness together, and this product by eight, and point off one figure in the product for decimals.

To find the amount of hay in a mow, allow 512 cubic feet for a ton, and it will

come out very generally correct.

To Measure Bulk Wood—To measure a pile of wood, multiply the length by the width, and that product by the height, which will give the number of cubic feet. Divide that product by 128, and the quotient will be the number of cords. A standard cord of wood, it must be remembered, is four feet thick; that is, the wood must be four feet long. Farmers usually go by surface measure, calling a pile of stove wood eight feet long and four feet high a cord. Under such circumstances thirty-two feet would be the divisor.

der such circumstances thirty-two feet would be the divisor.

MEASURE A TREE—Very many persons, when looking for a stick of timber, are at a loss to estimate either the height of the tree or the length of timber it will cut. The following rule will enable any one to approximate nearly to the length from the ground to any position desired on the tree: Take a stake, say six feet in length, and place it against the tree you wish to measure.

Then step back some rods, twenty or

e if you can, from which to do the measuring. At this point a light pole and measuring rule are required. The pole is raised between the eyes and the tree, and the rule is brought into position against the pole. Then by sighting and observing what length of the rule is required to cover the stake at the tree, and what the entire tree, dividing the latter length by the former and multiplying by the number of feet the stake is long, you reach the approximate height of the tree. For example, if the stake at the tree be six feet above ground and one inch on your rule corresponds exactly with this, and if then the entire height of the tree corresponds exactly with say nine inches on the rule, this would show the tree to possess a full height of fifty-four feet. In practice it will thus be found an easy matter to learn the approximate height of any tree, building, or other such object.

To Measure Casks or Barrels—Find mean diameter by adding to head diameter two-thirds (if staves are but slightly curved, three-fifths) of difference between head and bung diameters, and dividing by two. Multiply square of mean diameter in inches by .7854, and the product by the height of the cask in inches. The result will be the number of cubic inches. Divide by 231 for standard

or wine gallons, and by 282 for beer gallons.

Grain Measure—To find the capacity of a bin or wagonbed, multiply the cubic feet by .8 (tenths). For great accuracy, add 1/3 of a bushel for every 100 cubic feet. To find the cubic feet, multiply the length, width and depth together.

CISTERN MEASURE—To find the capacity of a round cistern or tank, multiply the square of the average diameter by the depth, and take 3-16 &

PRACTICAL CALCULATIONS.

the product. For great accuracy, multiply by .1865. For square cisterns or tanks, multiply the cubic feet by .23%. The result is the contents in barrels.

LAND MEASURE—To find the number of acres in a body of land, multiply the length by the width (in rods), and divide the product by 160. When the opposite sides are unequal, add them, and take half the sum for the mean length or width.

MEASURES OF CAPACITY—The following table, showing con-

tents of boxes, will often be found convenient, taking inside dimensions:

24 in. x 24 in. x 14.7 will contain a barrel of 31½ gallons.

15 in. x 14 in. x 11 in. will contain 10 gallons. 8½ in. x 7 in. x 4 in. will contain a gallon. 4 in. x 4 in. x 3.6 in. will contain a quart. 24 in. x 28 in. x 16 in. will contain 5 bushels. 16 in. x 12 in. x 11.2 in. will contain a bushel. 12 in. x 11.2 in. x 8 in. will contain a half bushel.
7 in. x 6.4 in. x 12 in. will contain a peck.
8.4 in. x 8 in. x 4 in. will contain a half peck, or 4 dry quarts. 6 in. x 5 3-5 in., and 4 in. deep, will contain a half gallon. 4 in. x 4 in., and 2 1-10 in. deep, will contain a pint.

Food for Stock.

One hundred pounds of good hay for stock are equal to: Beets, white silesia, 669; turnips, 469; rye straw, 429; clover, red, green, 373; carrots, 371; mangolds, 368½; potatoes, kept in pit, 350; oat straw, 317, potatoes, 360; carrot leaves (tops), 135; hay, English, 100; Lucerne, 89; clover, red, dry, 88; buckwheat, 78½; corn, 62½; oats, 59; barley, 58; rye, 53½; wheat, 44½; oil-cake, linseed, 43; peas, dry, 371/2; beans, 28.

Number of Shrubs, Plants or Trees in an Acre-

Distances apart.	No. of Plants.	Distances apart.	No. of Plants.	Distances apart.	No. of Plants.
1 by 1 1½ " 1½ 2 " 1 2 " 2 2½ " 2½ 3 " 1 3 " 2 3 " 3 3½ " 3½ 4 " 1 4 " 2 4 " 3 4 " 4 ½" 4½ 5 " 1	43,560 19,360 21,780 10,890 6,969 14,520 7,260 4,840 3,555 10,890 5,445 3,630 2,722 2,151 8,712	5 by 2 5 " 3 5 " 4 5 " 5 5½" 5½ 6 " 6 6½" 6½ 7 " 7 8 " 8 9 " 9 10 " 10 11 " 11 12 " 12 13 " 13 14 " 14	4,356 2,904 2,178 1,742 1,417 1,210 1,031 888 680 537 435 360 302 257 222	15 by 15 16 " 16 17 " 17 18 " 18 19 " 19 20 " 20 24 " 24 25 " 25 27 " 27 30 " 30 40 " 40 50 " 50 60 " 60 66 " 66	193 170 150 134 120 108 75 69 59 48 27 17 12

The city of Ghent, Belgium, stands on twenty-six islands, connected with each other by eighty bridges. The city of Venice is built on eighty islands, connected by nearly 400 bridges. In Venice canals serve for streets and gondolas for carriages.

Bricks and common pottery ware owe their red color to the iron naturally contained in the clay of which they are formed, the iron, by the action of the heat, being converted into red oxide of iron. Some varieties of clay, like that found near Milwaukee, contain little or no iron, and bricks made from such clay are consequently of a light yellow color.

LANGUAGE OF PRECIOUS STONES.

The ancients attributed marvelous properties to many of the precious stones. We give in tabular form the different months and the stones sacred to them, with their respective meanings. It has been customary among lovers and friends to notice the significance attached to the various stones in making birthday, engagement and wedding presents.

JANUARY, GARNET.—Constancy and fidelity in every engagement.

FEBRUARY, AMETHYST.—Preventive against violent

passions.

MARCH, BLOODSTONE.—Courage, wisdom and firmness in affection.

APRIL, SAPPHIRE.—Free from enchantment; denotes repentance.

MAY, EMERALD.—Discovers false friends, and insures true love.

JUNE, AGATE.—Insures long life, health, and prosperity. JULY, RUBY.—Discovers poison; corrects evils resulting from mistaken friendship.

AUGUST, SARDONYX.—Insures conjugal felicity.

SEPTEMBER, CHRYSOLYTE.—Free from all evil passions and sadness of the mind.

OCTOBER, OPAL.—Denotes hope, and sharpens the sight

and faith of the possessor.

NOVEMBER, TOPAZ.—Fidelity and friendship. Prevents bad dreams.

DECEMBER, TURQUOISE.—Prosperity in love.

COLLEGE COLORS.

Amherst-Purple and white. Beloit-Old gold. Bowdoin—White. Brown-Brown and white. Columbia - Light blue and white. Cornell-Carnelian and white. Dartmouth-Green. Harvard-Crimson. Indiana—Crimson and cream. Iowa—Scarlet and black. Iowa State — Cardinal and gold. Johns Hopkins - Black and old gold. Lake Forest-Red and black. Leland Standford—Cardinal. Oberlin—Crimson and gold. Northwestern—Royal purple. Princeton-Orange and black.

University of Chicago-Ma-University of Illinois—Orange and navy blue. University of Michigan-Maize and blue. University of Minnesota-Old gold and maroon. University of Notre Dame-Gold and blue. University of Pennsylvania— Red and blue. University of Rochester— Dandelion yellow. Wisconsin-University of Cardinal. Vassar–Rose and gray.

Williams-Royal purple.

Yale—Blue.

Purdue-Old gold and black.

THE PHILOSOPHY OF DREAMS.

"Lulled in the countless chambers of the brain, Our thoughts are linked by many a hidden chain; Awake but one, and lo! what myriads rise; Each stamps his image as the other flies."

The Bible speaks of dreams as being sometimes prophetic

or suggestive of future events.

This belief has prevailed in all ages and countries, and there are numerous modern examples, apparently authenticated, which would appear to favor this hypothesis.

The interpretation of dreams was a part of the business of the soothsayers at the royal courts of Egypt, Babylon and

other ancient nations.

Dreams and visions have attracted the attention of mankind of every age and nation. It has been claimed by all nations, both enlightened and heathen, that dreams are spiritual revelations to man; so much so, that their modes of worship have been founded upon the interpretation of dreams and visions. Why should we discard the interpretation of dreams, while our mode of worship, faith and knowledge of Deity, is founded upon the interpretation of the dreams and visions of the prophets and seers of old?

Dreams vividly impressed upon the mind are SURE to be

followed by some event.

We read in the Holy Scripture the revelation of the Deity to His chosen people, through the prophet Joel: "And it shall come to pass, afterward, that I will pour out My Spirit on all flesh, and your sons and your daughters shall prophesy, your old men shall dream dreams, your young men shall see visions, and also upon the servants and the handmaids in those days will I pour out My Spirit." (Joel ii, 28.)

Both sacred and profane history contain so many examples of the fulfillment of dreams, that he who has no faith in them

must be very skeptical indeed.

Hippocrates says that when the body is asleep the soul is awake, and transports itself everywhere the body would be able to go; knows and sees all that the body could see or know were it awake; that it touches all that the body could touch. In a word, it performs all the actions that the body of a sleeping man could do were he awake.

A dream, to have a significance, must occur to the sleeper while in healthy and tranquil sleep. Those dreams of which we have not a vivid conception, or clear remembrance, have no significance. Those of which we have a clear remembrance must have formed in the mind in the latter part of the night,

THE PHILOSOPHY OF DREAMS.

for up to that time the faculties of the body have been employed in digesting the events of the day.

DICTIONARY OF DREAMS.

NOTE.—If you do not find the word you want, look for a word of identical or closely similar meaning. Place the words "to dream of" before each term, and the word "denotes" after, and a complete sentence will be formed. Thus: To dream of ABUNDANCE, denotes deceitful security.

ABUNDANCE. - Deceitful security.

ACCIDENT. Unexpected meeting.

ACORN.—Irreparable fault. ACCOUNT.—(Of possessions)

bankruptcy. ADULTERY. - (That commit) scandal, misfor-

tune and disgrace.
AIR.—(Clear and serene) reconciliation; onciliation; (dark and gloomy) sadness and sickness.

ALMONDS.—Peace, happiness; (tree) success in business.

ALTAR.-Prosperity, speedy marriage.

ALMS.-(Giving) mediocrity; (receiving) privations.

ANCHOR.—Safe enterprise.
ANGRY.— (That you are)
many powerful enemies. APE.-Enemies, deceit.

APPLES .- Gain, profit; (to eating) disappointment.

APRICOTS. — Health, contentment.

APPLE-TREE.-Good news; (if dead) ill news.

ARTICHOKES.—Embarrassment, pain.

ASHES.-Misfortune.

ASPARAGUS. Success,

profit. ASS.—Quarrel between friends; (one sleeping) security; (one braying) dishonor; (ears of one) scandal; (one laden) profit.

ARGUMENT.-Justice done.

ARM.—(Right arm cut off) death of a female relative; (both arms cut off) captivity and sickness; (broken or withered) sorrows, losses and widow-hood; (swollen) sudden fortune coming to a dear friend.

AUNT.—Wealth and friends. ANGEL.—Good news. ANTS.—Time spent to no purpose. AUTHORITY. — (To

have) easy times.

BABE.-Happy marriage. BAKER.-Gain.

BALLOON.-Literary note. BARLEY.-Good fortune.

BASKET.—Increase. BABOON.—Affronts.

BALL.-(For dancing) jealousy, rage, then harmony. BANK.—Never to be rich,

except by saving. BARBER.—A long

discontent.

BARN.-(Full) wealthy mar-

riage.
BATH.—Marriage; (too cold)
grief; (too hot) separation; (in running water) disappointment; (in stagnant water) misfortune.

BEGGAR.-Help when not expected.

BELLS.-Alarm, misfortune. BEAR.—Danger, misfortune.

BEANS.—Quarrels.

BED.-Botheration, unrest. BEER.—Fatigue to no purpose.

BEES.—Profit; (to catch) success; (stung by) to be overworked.

BLIND PERSON.—False friends.

BLOWS.—(To give) forgiveness; (to receive) advan-

BOOTS.—(New) success love and business; (old) quarreling and failure.

BONNET .- (New) flirtation; (old or torn) rivalry.

clear water) BOAT.—(In happiness; (in muddy water) disgrace. BONES.—Large

acquisition

by small degrees. BOOK.—Information.

BOW AND ARROWS.-Love affairs.

BOTTLES.—A feast; (broksickness; (empty) en) melancholy.

BOUQUET .- (To carry) marriage; (to destroy) separation; (to throw away) displeasure.

BRANDY.—Depravity.

BROOK. - (Clear) lasting friendship; (troubled) domestic quarrel. BRIARS.—Disputes.

BETROTHAL.—Brief pleas-

BIRDS. - New pleasures; (singing) love, good for-

BITE.-Mistrust, ingratitude. BILLIARDS.—Hazards, dissipation.

BISCUIT.-Rejoicings, jolly feasting.

BLESSING OR BENEDIC-TION.-A forced marriage.

BLACKBIRD.—Scandal, deceit.

BRIDGE. - (To pass one) success through industry; (to fall from) loss of business and disappointment in love.

BREAD.-Profit; (white) lasting affection; (black) inconstancy.

BUGS.-Enemies seeking to

do injury. BULL. — (Peaceful) gain; (onset of) apprehension.

BUTCHER. - Death of a friend.

BUTTERFLY.—Inconstancy. BUTTER. - Surprises; (to make) a legacy.

C

CABBAGE.—Health and long

CAGE.—(With bird) liberty; (without bird) imprisonment.

CAKES. — Meeting friends; (to make or eat) prosperity.

CALF.—Assured success. CAMEL.—Riches. CANDLE.—Favors, praise. CANDIES.—Ardent love.

CANE.—Correction.

CARDS.—Married life.

CARPENTER. - Arrangement of affairs.

CART.—Sickness and disgrace. CAVE.—Quarrel, loss.

CARVING.—Business prosperity.

CAT.-(To see) treason; (to kill) family quarrels.

CELLAR.—(Full) passing renown; (empty) health.

CEMETERY.—(To see) ture prosperity; (to in) news of a death. CHAIN. — Union; (broken)

rupture.

CHALLENGE.—Rupture, illusion.

CHERRIES. - Health (to gather) deception by woman; (to eat) love.

CHICKEN.—(Cooking) good news.

CHEESE, - Vexation and after success.

CHESTNUTS.—Home bles.

CHILD.—(Pretty) pleasure; (ugly) danger; (running) business difficulty.

CHURCH. - Heritage; pray in) deceit; to speak aloud in) domestic quarrels.

CHESS. - Affairs embarrassed.

CIDER.-Distant heritage, dispute.

CLAMS.—Small possessions, stingily kept.

CLOCK.-Marriage; (striking) a competency.

COAL.—Persecution.

COCK.—Pride, power, success; (one crowing) sudden trouble; (two fighting) expensive follies.

COLIC. - Bickerings,

trangement.

CORKSCREW. - Vexatious inquiries.

CORPSE.—Long life; news of the living; (one disinterred) infidelity.

COW. - Prosperity, abund-

ance.

COBBLER.-Long toil, ill paid.

COFFEE.—Misfortune.

COFFIN.—Speedy marriage. COOKING.—A wedding.

CORN.—Riches; (to grind) abundance.

CRABS.-Ill results of endeavor.

CRADLE, OR CRIB.—Increase in the family.
CRICKET. — Hospitality,

home comfort.

CROCODILE.—A catastrophe.

CROSS.—(To see) disquiet; (to bear) tranquillity.

CROW. - Disappointed pectations, humil (to hear) disgrace. CROWD. — Many m humiliation;

matters,

much to hear.

CRUTCHES .- (To use) gambling losses; (to break or leave) recovery.

CUCUMBER. - Serious

CURRANTS.—(Red) friendship; (white) satisfaction; (black) infidelity.

CYPRESS.—Despair, death of one cherished.

D

DANCING.—(To engage in) successful endeavor; (to see) weariness.

DEBTS.—(Denied) business safety; (admitted) distress.

DOCTOR.—Robustness; (to be one) enjoyment.

DOG.—Friendly services; (to play with) suffering through extravagance.

DESERTION. — Good news,

permanence.

DEVIL.—Temptations. DIAMONDS.—Brief, illusive happiness; (to find) loss;

(to sell) peril.

DICE.—Doubt, risks. DIRT.—Sickness, detraction. DISPUTE. — (Friendly) see Argument; (not friendly) see Quarrel.

DISHES.-Possessions: (breaking) family quar-

rels.

DITCH.—Bankruptcy.

DOOR.—(Open) opportunities; (closed) unfruitful adventure; (to force) reproof.

DOVE.—Home happiness,

lover.

DRAUGHTS.—(To play at) disappointment.

DRAWING.—A proposal for rejection.

DROWNING.—Happiness. DRUM.—Small difficulties. trifling loss.

DUCK.-Profit and pleasure; (to kill one) misfortune.

DUEL.—Rivalries; dissension.

DUMB.—(One's self) quarrels; (another) peace, DWARF.—Feeble foes.

DYER. — Embarrassed affairs.

E

EAGLE.—Worthy ambition; (kill one) gratified wishes.

EATING.—Botheration. ECLIPSE.—(The sun)

loss; (the moon) profit. EELS. - (Alive) vexation;

(dead) vengeance satisfied.

EGGS. - (Afew) riches: (many) misadventure.

ELEPHANT.-Power; (feed one) gain of a service.

EMBROIDERY.—Love, ambition.

EPITAPH.—Indiscretion. EYES.—Bad luck.

F

FACE.—(Smiling) joy; (pale) trouble.

FAIRS.—Sudden loss.

FALLING.—Dangerous vation; (in a hole) calumny, disappointment. FAN.—Pride, rivalry. FARMER.—Fun, good

living.

FATIGUE.—Successful enterprise.

FATHER-IN-LAW. — Un-

lucky. FEAST.—Trouble ahead.

FEATHERS.—(White) great (black) joy, friendship;

hindrances, loss. FIELDS.—Joy, good health,

domestic happiness.
FINGERS.—(Scalded) envy;
(cut) grief; (to see more than five on one hand) new relatives.

festivity; FIGS. — (Dried) (green) hope; (to eat) transient pleasures.

FLOWERS.—Happiness; (to gather) benefit; (to cast

away) quarrels.
FLUTE.—News of a birth.
FIRE.—Anger, danger.
FIRE ARMS.—(To see) anger; (blaze of) spite; (to hear) havoc.

FISH.—Success, joy; (t catch) deceit of friends.

FLAG. - Contention; (to bear) fame, honor.

FLAME.—(Luminous) good

FLEAS.—Unhappiness; kill) triumph over (to ene-

mies. FLIES.—That some one jealous of us.

FLOOD.—Misfortunes, calumny.

FOG.—Deception.

FOREST.—Loss, shame. FOUNTAIN. — Abundance, FOUNTAIN. health.

FOX.—To be duped; (to kill) to triumph over enemies.

FROGS. — Distrust; ping) vexation, (hopannoyance.

FRUITS.—Joy, prosperity, gain; (to eat) be deceived by a woman; (throw away) trouble through others' envy. FUNERAL. —

Inheritance, news of a birth or mar-

riage.

FUR.—(On the body) health and long life.

GALLOWS.—Dignities and honors (proportionate to height).

GAMBLING.—Deception.

GARDEN. - Bright future days; (well kept) increase of fortune; (disorderly) business losses and failure.

GARLIC.—Deceived by

woman.

GARMENTS. - Annoyance; (white) innocence, comfort; (black) death of a friend; (torn or soiled)

sadness, misfortune. GARTER.—Happy marriage. GAUZE.—Affected modesty.
GHOST.—(White) consolation; (black) temptation.
GIFT.—(From a man) danger; (from a woman)

spite.

GLOVES. - Friendly vances.

GOAT.—(White) prosperity; (black) sickness.

GOLD.—Profit, fortune. GOOSE.—Same as I Duck; (catch one) ensnarement.

GRANDPARENTS. - Occasion for repentance.

GRAPES.—Enjoyment, joicing, (scant or poor) deprivations.

GRASS.—(Green) long life. GRASSHOPPER.-Lost harvest or savings.

GRAVE.-(Open) loss of a friend; (filled up) good

fortune.
GUITAR. — Deception, illconduct.

GYPSY.-Small troubles.

H

HAIL.-Trouble, sadness. HAIR.—(Orderly) comfort. complacency; (tangled) perplexities; (falling out) anxieties.

HAM.—Happiness.

HARP.—A handsome part-

ner. HARVEST.—Wealth in the country.

HAY.—Abundance.

HEART.—(Pain or troubles) sickness, danger.

HEAVEN. - Some joyful event will happen. HELL.—You lead a bad life

and should reform before

it is too late. HEN.—Profit; (hear one) consolation; (one laying)

joy. HERBS. - Prosperity; (to

eat) grief. HERMIT. — Treacherous friend.

HILL.—(Up one) success; (down) misadventure.

HOLE.—Obstacles. See Falling. HOLLY.—Annoyance.

busi-HONEY.—Success in ness.

HORSE.—(See white one) unexpected good fortune; (see black one) partial success; (mount or ride) enterprise; success in (curry one) a speedy journey.

HOTEL.-(See one) wander-

ing; (be in) discomfort. HOUSE.—(New or strange) consolation; (many) bewilderment.

HUNGER.—Profitable ployment.

HUNT.—Snares, accusations. HUSBAND. — If a wife dreams that her husband is married to another it betokens separation.

ICE.—Treachery, misadventure.

IMPS.—Occasion for caution.

INFANT.-Connubial felicity.

INK.-Reconciliation; (up-

set) separation. INSANITY.—Bright ideas. wise thought.

IRON.—Cruel experience.

ISLAND.—Solitude, loneli-

ITCH.—Small foes.

IVORY.— Profitable enterprise.

INTOXICATION. — One's self) pleasures; (another) scandal.

and IVY.—Children many handsome.

JAIL.—(To enter) safety; (leaving one) single blessedness.

JAW.—Riches in the family. JEW.—Trickery. JOY.—Bad news. JUDGE.—Punishment.

JUG.—Loss through awkwardness or neglect.

K

KEYS.—Explanations, progress in knowledge; (to lose) perplexity.

KILLING.—(To see) security; (one's self) love

quarrels; (another) jealousy.

KIDS.—Consolation. KING.—Satisfaction, prog-

ress in affairs.

KISS.—(In the light) true love; (in the dark) risks; (a stranger) a new lover; (a rival) treason; (married woman kissed by a stranger) a new baby and a jealous husband.

KITCHEN.—Arrivals. KITE.-Vain glory.

KNIFE.—Inconstancy, dissension.

KNITTING. — Mischievous

talk, malice. KNOTS. — Embarrassments, difficulties.

LABOR.—Conjugal happiness, increase of fortune.

LADDER.—(To go up) brief glory; (to go down) debasement.

LADY.— Humiliation;

(many) gossip.

LAMBS.—(To see) peace; (to have) profit; (to carry) success; (to buy) great surprise; (to kill) secret grief.

LAME PERSON.—Business

misfortune.

LAMPS. — (Unlit) neglect;
(lighted) love troubles.

LANDSCAPE. — Unexpected

gain. LANTERN.—(Lighted) safe adventure; (unlit) blunder.

LARKS.—Riches, elevation. LAUGHTER. — Troubled happiness, botheration.

LEG.—(If sound and supple) successful enterprise, prosperous journey.

LETTER.—(To see) discovery; (to receive) good news from afar.

LICE.—Wealth.

LIGHTNING.—A love quarrel.

LILY.—(Faded) vain hopes; (fine) innocence, happiness.

LINEN. - Fortune, abund-

LION.—Future dignity. LIVER. - Losses, discom-

LIZARD.-Snares of dubious origin.

LAUREL.-Honor, gain.

LAWYER.—Marriage of LEAD.—Accusations, ingrat-

itude. LEAVES .- Transient indis-

position.

LEECH. — Aid in trouble; (many of them) extortion, usury. LEEKS.—Labor.

LETTUCE.—Poverty. LOCKSMITH.-Robbery.

LOTTERY TICKET.—
(Numbers distinct) success in affairs; (numbers indistinct) foolish penditure.

LOVE.—An all 'round good indication. LOVERS. — Troubles

and joys, mixed.

MACCARONI.—Distress. MAN. — (Handsome) love; (ugly) wrangles.
MANTLE.—Victimizing.

MANURE. - Depravity, shame.

MARS.—A journey.
MARBLE. — Estrangements.
MARKETS.—(A busy one) joyous events; (empty) deprivations.

MARSH. — Unfruitful

deavors.

MASKS.—Hypocrisy.
MEASLES. — Wealth
pled with disgrace. cou-

MEAT.—(Roast) kind reception; (boiled) melancholy. MELON.—Hope, success.

MICE.—Annoyances.

MILESTONE.—Desires accomplished.

MILK.—Love affairs.

MILLS.—Legacy from a relative.

MIRE.—Mistakes, privations. MIRROR.—(To look in) misunderstanding; (broken) misadventure.

MONEY.—Losses in business; (to find) tardy discoveries.

MONEY-LENDER. — Persecution.

MONKEY.-Harmless mischief.

MOON.—Love; (bright) continual pleasure; (clouded) sickness, danger to one beloved; (full) wealth; (new) awakening affection; (failing) deceit; (red) renown.

MOURNING. — Impending happiness, invitation to a

ball or wedding.

MOUTH.—(Closed SO cannot eat) sudden death; (wider than usual) riches.
MUD.—Riches.
MULE.—Difficulty.

MUSIC.-Ease, pleasure.

MUSTARD.—Troubles. MYRTLE. — Love deelaration.

NAILS. — (Broken) misad-(very long) venture; emoluments.

NAKEDNESS. — Threatened danger.

NAVIGATING .. - Approach-

ing journey. NECKLACE.—Jealousy, annoyance.

NEEDLES.—Disappointment in love.

NEGRO.-Vexation, annoy-

NEST.—Good luck, profit. NEWSPAPER. — Bothera-

tion, gossip. NIGHT.-(Walking) uneasiness, melancholy.

NIGHTINGALE. Happy marriage.

NOSE. — (That yours is large) prosperity and aequaintanee with rieh people.

NURSE.—Long life.

NUTS.—Peace and satisfaetion after trouble difficulty.

O A K.—(Green) health, strength; (dead or fallen)

heavy losses. OARS.—Sate enterprise (to or lose) dependbreak ence.

OFFER OF MARRIAGE.-New lovers.

OFFICE. — (Turn out of) death or loss of property. OIL.—Good harvest. OLD PERSON.—(Man) pru-

dence, wisdom; (woman)

scandal. OLIVES.-Honors and dignities.

ONIONS.-Aggravation, dispute with inferiors.

OPERA.-Pleasure followed

by pain. ORANGE BLOSSOM. — A marriage.

ORANGES. -Amusement, pleasure; (sour) ehagrin, injury.

ORCHARD.-Much of noth-

OSTRICH. — Misadventure through vanity.

OVEN.—Ease, riehes; (hot) feasting. OWL.—Secrets revealed.

OYSTERS.—Satiety.

PAIN.-Trouble and recovery

PAINTER.—That everything will be lovely.

PALM-TREE.-Honor, power, victory.

PAPER.—Tidings; (colored) deceit; (painted) brief happiness.
PARENT.—Good news.
PARROT.—A bad neighbor.

tale-bearing.

PASTRY.—(To eat) annoy-(to make) ance; good times.

PATHS.—(Straight) happiness; (erooked) ill to the willful

PAWNBROKER.—Little result of big endeavor. PEACOCK.—Peril through

pride, ambition wariness.

PEACHES. - Contentment,

pleasure.
PEARLS.—Tears, distress.
PEARS. — Treachery; ((to eat) tidings of death; (to gather) festivities.

PEAS.—Good fortune. PENS.—Tidings.

PEDLER. — You are mistaken in your estimate of a friend.

PEPPER.-Affliction, vexation.

PHEASANT.—Good fortune; (kill one) peril; (to earry one) honor. PIANO.—Disputes.

PIG-PORK.—(Few) avarice; (many) profits. PIGEON.—Reconciliation. PILLOW.—Disturbance. PILLS.—Trouble.

PINE-TREE.—Danger. PINS.—Contradiction.

PIRATES.—Fortunate adventure. PITCH.—Evil companions.

PITCHFORK.—Punishment. PLAYING. — Entertainment. PLUMS.—Pleasure, happi-POLICEMAN.—Trouble. POMEGRANATE.—Power.

POSTMAN.-News from the absent.

POVERTY.—Thrift, advan-

PRESERVES.—Loss of time

and money.
PRIEST.—Reconciliation. PROCESSION.—Happy love. PUMP.—(If water) marriage and fortune; (if dry) flirtation.

credit) PURCHASE. — (On deprivations; (for cash) possessions.

PURSE.—(Empty) something to get; (full) pride, disquiet. PUZZLE-Favors, pleasure,

Q

QUAIL.—Family responsibilities. - Constancy, QUARREL. friendship. QUEEN.—Prosperity. QUESTIONS.—Wisdom. QUILL.— Particular information. QUOITS.-Rivalries.

R

RABBIT. - (White) ship; (black) friendtrouble; (many) extensive pleasures. RACING.—Success in life.

RADISHES.—That you will discover secrets.

RAFT.—New views. RAIN.—Legacy of gift. RAINBOW.—Separation.

RAT.—Secret enemies; (white) triumph over enemies.

RAVEN .- Misfortune; (hear one) grief.

READING. - Venturesome-

REAPER.—A picnic party. REVENGE.—Repentance. RIBBONS.-Prodigality. RICE.—Talking.

RIDE.—(With men) it is a good sign; (with women) a bad sign.

RING.—Approaching riage.

RIOT .- Scarcity through mischief.

RIVAL.—Quarrels. RIVER.—Success in enterprise; (to fall in) tempts of enemies; throw one's self in) confusion in affairs.

ROBBER.—Fear.

ROCK .-- Annoyance; (to surmount) difficulties overcome.

ROOF.—Adventure abroad. ROSES.—Always of happy omen; (full blown) health, joy, abundance; (faded) success, with some draw-backs; (white) innocence; satisfaction; (red) (yellow) jealousy.

RUFFLES.—Honors, profit-

able occupation. RUINS.—Pleasant surprises. RUST.—Idle times, decay, failure.

S

SAILOR.—Tidings from abroad.

SALAD.—Embarrassments. SALT.—Wisdom.

SATIN OR SILK.-Gain. SAUSAGE.—Affliction, sick-

SAW.—Satisfactory conclusions in affairs.

SCISSORS. — Enemies,

SCRATCHES. - Inconvenences, annoyances.

SCREECH-OWL.—Death near relative.

SCULPTOR.—Profit. SEA.—Long journey, large affairs.

SEABEACH.—Tranquility. SECRETARY.—Fortune. SERENADE.— News of marriage.

- Weariness, SERMON. sleeplessness.

SERVANT.—(Man) abuse of confidence; (maid) suspicion.

SEWING.—Plots. SHAWL .- (A fine one) honors; (thin or old) shame; (torn) detraction. SHEEP.—Great gain.

SHELL.—(Filled) success; (empty) ill-omen.

SHEPHERD.—Malice.

SHIP.—Wishes fulfilled; (in danger) unexpected good fortune.

SHOES. — Advantageous speculation; (much worn)

a speedy journey. SHOP.—(To be in) pleasure denied; (to conduct) dues withheld.

SHROUD.-Death.

SINGING.-Vexation.

SKATING.—(To see) hin-drances, crosses; (to do) success.

SKELETON.—Disgust.

happiness, SKY. — (Clear) peace; (clouded) misfor-

SLEEP.-Illusive security. SLIPPERS.—Comfort, satisfaction.

SMOKE.—Extravagant pectations.

SNAIL.-Infidelity, dishonor. SNAKES.—Treason, betray-

SNEEZING.—Long life.

SNOW.-(In season) good (unseasonable) harvest: discouragement.

SOAP.—Revelations, assistance.

SOLDIER.—Quarrels.

SOUP.-Return of health or fortune.

SPECTACLES.-Melancholy, obstacles.

SPIDER. — (In dark) the gain; (in the light) contention; (kill one) pleas-

SPONGE.—Greed, avarice. SPORTS.-Pleasure and aft-

er regrets. SPOT.—(On clothes) ness; (on the sun) baseless fears.

SPY.-(To be one) reprehension; (to see) rumors. STABLE.—Hospitality, wel-

come.

one) STAG.—Gain; (chase business failure.

STAMMER.—Decision, reso-

lution. STARS.—Happiness; (pale) affliction; (shooting) death of relative.

STOCKING.—(To pull off) comfort; (to pull on) discomfort; (new) a visit; (a hole in) deceitful fortune.

STONES.—(Under foot) trouble, suffering; (thrown or falling) malice.

STORKS.—Loss, robbery. STORM.—Contest, vexation. STOVE.—Riches.

STRANGER.—Return of lost friend.

STRANGE BED.-Contentment.

STRANGE ROOM.-A mystery solved.

STRAWBERRIES. - Unexpected good fortune.

STRAWS.-Poverty.

STREET .- (To walk in) favorable reception ...

SUGAR. — Privation and want.

SUN.—(Bright) discovery of (clouded) bad secrets; (rising) news; success;

(setting) losses. SUPPER.—News of a birth. SWALLOW.—Successful en-

terprise. SWANS.—Private riches. SWEARING. - Disagreea-

SWEEPING. - Confidence

well placed. SWIMMING—Enjoyment. SWORDS.—Misfortune.

TABLE.—Joy; (to set) abundance.

TAILOR.—Unfaithfulness. T E A. - Confusion, incum-

brance.
TEARS.—Joy, comfort.

ventures.

TEETH. -(Handsome) health, goodness; (mean or drawn) vexation, loss. TEN-PINS.—Undesirable ad-

TENT.—Quarrels. THEATRE.—Sadness, loss. THICKET. - Evasions, prehensions.

THIEF.—(To be one) loss; one) good (to lose by

speculation.

THIMBLE.-Work hard to find.

THIRST.—Affliction.

THISTLE.—Disputes, folly. THORNS. — Disappointment, pain; (to be pricked by) loss of money.

THREAD .- Intrigue; (tangled) confusion of affairs; (to break) failure; (to split) a secret betrayed.

THUNDER.—Danger; (to see thunderbolt fall) death of a friend.

TIGER.-Fierce enmity.

TOADS.-Something to dis-

gust.
TOMB. — Family matters, nuptials, births.

TORCHES.-Invitation to a

wedding.

TRAP-DOOR .- (Open) a se-(shut) cret divulged; mystery.

TRAVEL .- (On foot) work; (on wheels) fortune.

TREASURE .- (That you find one) disappointment.

TREES.—In general; (green) hope; (withered) grief; grief: (leafiless) deceit; (cut down) robbery; (to climb) change of employment.

TROUSERS. - Honors responsibilities.

TURKEY.-If you dream of a turkey you will shortly see a fool.

TURNIPS .- Disappointment,

annoyance. TWINS.-Honors, riches.

UMBRELLA.—(To a lady) a new lover; (to a gentleman) a breach of promise suit.

UNCLE. - Advantageous marriage.

UNDRESS.-(One's self) rebuke; (another) scandal. UNIFORM.—(To see) humbling; (to wear) flattery.

VEGETABLES.—(In general) weary toil; to gather) quarrels; (to eat) bus-

iness losses. VEIL. — Marriage; (black)

death or separation.

VEINS.—Grief.

VERMIN.—Enough and spare.

VILLAIN.—Danger of losing property.

VINE.-Fruitfulness, abundance.

drink) VINEGAR.-(To wrangles; (spoiled) sick-

VIOLETS .- Success of undertakings.

VIOLIN.-(In concert) sympathy, consolation; (alone) bereavement.

VISITORS.—Loneliness. VIRGIN.-Joy, without re-

gret; (pretended one) sor-row, evil. VULTURE.—Bitter enmity; (kill one) triumph over foes; (one feeding) returning fortune.

WAGON.—(Loaded)
ment; (e m p t y) emoluease, pleasure.

WAKE.-Poverty and mis-

ery.

WALL:-Obstacles; (to be on) prosperity.

WAR. — Misunderstandings and contentions.

WARDROBE.—Advantage. WASH-DAY.—New friend friends,

good resolutions. WASPS .- Annoyance; (to be

stung) affronts.

WATCH.—Time well ployed.

WATCHMAN.-Trifling loss. WATER.-See Bath, Drink; (to drink) a marriage or birth; (to fall into) reconciliation.

WATER CARRIER.-Gain. WAX.-Desirable marriage. WEASEL.—To be outwitted.

and the second s
WEDDING. — Unexpected
danger, troubled happi-
ness.
WELL.—(Draw water from)
good fortune; (fall into)
peril.
WHEAT.—Money.
WHEELBARROW,
WHEEL.—Disability, in-
firmity.
WHIRLWIND Danger,
scandal.
WIDOWHOOD, - Satisfac-
tion, new belongings.
WIFE.—If a man dreams he
sees his wife married to
another, it betokens a
separation.
WOLF.—Enmity; (to kill
one) gain, success.
WOMAN.—Deceit; (fair)
love; (ugly) scandal.

WOOD-CUTTER Labor
without profit.
WOODS.—(To rich) loss; (to
poor) profit.
WORK. — (Of right hand)
prosperity; (of left hand)
impecuniosity.
WORMS. — Secret enemies, ill-health.
WRECK. — Catastrophes,
peril. — Catastrophes,
WRITING Pleasant and
profitable discovery.
promise discovery.

Y

Y	
YEAST.—Increase,	abund-
ance.	
YOKE. — Respons	
particularly of m YOUTH.—Good time	arriage.
responsibilities.	e, ngnt

AGES ATTAINED BY BIRDS.

Years. Blackbird lives	Parrot lives 60 Partridge lives 15 Peacock lives 23 Pelican lives 50 Pheasant lives 15 Pigeon lives 20 Raven lives 100 Robin lives 30 Skylark lives 30 Sparrow-hawk lives 40
Goose lives 50	Skylark lives 30

WHERE PLANTS ORIGINATED.

Name.	Coun. of Orig.	Name.	Coun. of Orig.
Apple	Europe.	Peach	Persia.
Cherry	N. Europe.	Pear	
Chestnut		Peas	Egypt.
Citron		Pine	America.
	East Indies.	Poppy	
Garden Cress		Potato	
Horse Chesti	autThibet.		Isl. of Crete.
Horseradish	South'n Europe	Radish	China & Japan.
Madder	The East.	Rye	
Mulberry Tre		Spinach	
Nettle		Sunflower	
	North Africa.	Tobacco	
Onion		Walnut	
Parsley		Zealand Wax	

MEMORY RHYMES.

THE MONTHS.

Thirty days hath September. April, June and November; All the rest have thirty-one. But February, which has twenty-eight alone. Except in leap-year; then's

the time

When February's days are twenty-nine.

BIRTHDAYS.

Monday for health, Tuesday for wealth, Wednesday best of all, Thursday for crosses, Friday for losses, Saturday no luck at all.

The lines refer to the days of the week as birthdays. They are, in idea, the same as the more familiar lines:

Monday's child is fair of face,

Tuesday's child is full grace;

Wednesday's child is merry and glad,

Thursday's child is sorry and

Friday's child is loving and

giving;

Saturday's child must work for its living; While the child that is born

on the Sabbath day

blithe and bonny, and good and gay.

SHORT GRAMMAR.

Three little words you often

Are Articles, a, an and the. A Noun's the name of any thing,

As school or garden, hoop, or swing.

Adjectives tell the kind of noun,

great, small, pretty, white, or brown.

Instead of Nouns the Pronouns stand-

His head, her face, arm, my hand.

Verbs tell something to be done-

To read, count, laugh, sing. jump or run.

How things are done the Adverbs tell-

As slowly, quickly, ill or well.

Conjunctions join the words together-

As men and women, wind or weather.

The Preposition stands before

The noun, as in or through the door.

The interjection shows sur-

As Oh! how pretty, Ah! how wise.

The Whole are called nine parts of speech.

Which reading, speaking teach.

TO TELL THE AGE OF HORSES.

To tell the age of any horse, Inspect the lower jaw, of course;

The six front teeth the tale will tell.

And every doubt and fear dispel.

Two middle "nippers" you behold

Before the colt is two weeks old.

Before eight weeks will two more come;

Eight months the "corners" cut the gum.

The outside grooves will disappear

From middle two in just one year.

In two years, from the sec-

ond pair; In three, the corners, too, are bare.

At two the middle "nippers" drop;

three, the second pair can't stop.

MEMORY RHYMES.

When four years old the third pair goes

At five a full new set he shows.

The deep black spots will

pass from view At six years from the middle two.

The second pair at seven years;

At eight the spot each "cor-

ner" clears. From middle "nippers" upper jaw,

At nine the black spots will withdraw.

The second pair at ten are white;

Eleven finds the "corners" light.

As time goes on, the horse-

men know, The oval teeth three-sided

grow; They longer get, project be-

Till twenty, when we know no more.

BEES.

A swarm of bees in May Is worth a load of hay; A swarm of bees in June Is worth a silver spoon; A swarm of bees in July Is not worth a fly.

THE CUCKOO.

May-sings all the day; June-changes his tune; July-prepares to fly; August—go he must.

RULES FOR RIDING.

Keep up your head and your

Your hands and your heels keep down,

Press your knees your horse's side, close

And your elbows close your own.

"HAPPINESS" DEFINED.

Wanting nothing and knowing it. The mental sunshine of content.

A "will-o'-the-wisp" which eludes us even when we grasp it. Excelsior! The ever-retreating summit on the hill of our ambition.

The prize at the top of a greasy pole which is continually

slipping from one's grasp.

The only thing a man continues to search for after he has found it.

The bull's-eye on the target at which all the human race

are shooting.

The goal erected for the human race, which few reach, being too heavily handicapped.

A wayside flower growing only by the path of duty.

A bright and beautiful butterfly, which many chase but few can take.

The interest we receive from capital invested in good works.

The birthright of contentment.

A treasure which we search for far and wide, though ofttimes it is lying at our feet.

The summer weather of the mind.

LANGUAGE OF FLOWERS.

Flowers may be combined and arranged so as to express even the nicest shades of sentiment.

If a flower is offered reversed, its direct significance is likewise reversed, so that the flower now means its opposite.

A rosebud divested of its thorns, but retaining its leaves, conveys the sentiment, "I fear no longer; I hope." Stripped of leaves and thorns, it signifies, "There is nothing to hope or fear."

A full blown rose placed over two buds, signifies "Secrecy."

"Yes," is implied by touching the flower given to the lips. 'No," by pinching off a petal and casting it away.

"I am," is expressed by a laurel leaf twined around the bouquet. "I have," by an ivy leaf folded together. "I offer you," by a leaf of Virginia creeper.

Moss, Rosebud and Myrtle-"A confession of love."

Mignonette and Colored Daisy-"Your qualities surpass your . charms of beauty."

Lily of the Valley and Ferns-"Your unconscious sweetness has fascinated me."

Yellow Rose, Broken Straw and Ivy-"Your jealousy has broken our friendship."

Scarlet Geranium, Passion Flower, Purple Hyacinth, and Arbor Vitæ-"I trust you will find consolation, through faith, in your sorrow; be assured of my unchanging friendship."

Columbine, Day Lily, Broken Straw, Witch Hazel and Colored Daisy-"Your folly and coquetry have broken the spell of

your beauty."

White Pink, Canary Grass and Laurel-"Your talent and per-

severance will win you glory."

Golden-Rod and Monkshead, Sweet Pea and Forget-me-not-"Be cautious; danger is near; I depart soon; forget me not."

ARBOR VITAE.—Unchanging friendship.

CAMELIA. WHITE.-Loveliness.

CANDY-TUFT. - Indiffer-

CARNATION, DEEP RED. -Alas! for my poor heart.

CARNATION, WHITE.-Disdain.

CHINA-ASTER.—Variety.

FOUR - LEAF.-CLOVER, Be mine.

WHITE.—Think CLOVER,

of me.
CLOVER, RED.—Industry.
COLUMBINE.—Folly.

COLUMBINE, PURPLE.-Resolved to win.

DAISY.—Innocence.

DEAD LEAVES.—Sadness. DEADLY NIGHTSHADE.— Falsehood.

FERN.—Fascination. FORGET-ME-NOT. - True love. Forget me not. FUCHSIA, SCARLET.-Taste. SCARLET.-GERANIUM, Consolation. GERANIUM, ROSE.—Preference. GOLDEN-ROD. - Be cautious. HELIOTROPE.—Devotion. HONEY-FLOWER. - Love, sweet and secret.
HYACINTH, WHITE.—Unobtrusive loveliness. IVY.—Fidelity. SLIPPER. - Win LADY'S me and wear me. LILY, DAY.—Coquetry.
LILY, WHITE.—Sweetness.
LILY, YELLOW.—Gaiety. LILY OF THE VALLEY .-Return of happiness. MIGNONETTE.-Your qualities surpass your charms. MONKSHE'AD.— Danger near. MYRTLE.—Love.

OATS .- The witching soul of music. ORANGE BLOSSOMS.-Chastity. PANSY.—Thoughts. PASSION FLOWER.— Faith. BLOSSOM.—I am PEACH your captive. PEAR.—Affection. PRIMROSE.—Inconstancy. QUAKING GRASS.-Agitation. ROSE.—Love.
ROSE, DEEP RED.—Bashful shame.
ROSE, YELLOW.—Jealousy.
ROSE, WHITE.—I am worthy of you.
ROSEBUD, MOSS.—Confession of love.
SHAMROCK.—Lighthearted ness. STRAW.—Agreement. STRAW, BROKEN.—Broken agreement. SWEET PEA.—Depart. TUBEROSE. - Dangerous pleasures. VERBENA.—Pray for me. WITCH HAZEL.—A spell.

PATENT MEDICINE TESTIMONIALS.

We all know of cases where persistence in the taking of pills and other forms of medicine has been well rewarded. There is the man who testified: "I took ninety-three boxes of your liver pills before I began to see that they were doing me any good; but I had faith, and the ninety-fourth box brought me relief. That was four years ago. Since then I have taken from three to five boxes daily, and although I am not as well as I would like to be, yet I think I am gaining steadily. Send me four of your largest cases, C. O. D."

Likewise the woman who wrote: "It was in 1876 that I began to take your Life Tonic. At first I was doubtful, and bought only pint bottles. Then, gaining confidence, I ordered quarts, half gallons, and gallons, until last year I had faith enough in your wonderful remedy to order it by the keg. I feel greatly toned now, but I know that, as I was very much run down, it will require a considerable time to build my system up. Inclosed please find check for eight barrels, which you may ship by fast freight. By the way, why don't you put on a line of tank cars for the benefit of your regular customers?"

THE DERIVATIONS OF THE NAMES OF THE MONTHS.

JANUARY.—The Roman Janus presided over the beginning of everything; hence the first month of the year was called after him.

FEBRUARY.—The Roman festival Februs was held on the 15th day of this month, in honor of Lupercus, the god of

fertility.

MARCH.—Named from the Roman god of war, Mars.

APRIL.—Latin, Aprilis, probably derived from aperire, to open; because spring generally begins, and the buds open in this month.

MAY.—Lat. Maius, probably derived from Maia, a feminine divinity worshipped at Rome on the first day of this month.

JUNE.—Juno, a Roman divinity worshipped as the Queen

of Heaven.

JULY (Julius).—Julius Cæsar was born in this month.

AUGUST.—Named by the Emperior Augustus Cæsar, B. C. 30, after himself, as he regarded it as a fortunate month, being that in which he had gained several victories.

SEPTEMBER (septem, or 7).—September was the seventh

month in the old Roman calendar.

OCTOBER (octo, or 8).—Eighth month of the old Roman vear.

NOVEMBER (novem, or 9).—November was the ninth

month in the old Roman year.

DECEMBER (decem, or 10).—December was the tenth month of the early Roman year. About the 21st of this month the sun enters the Tropic of Capricorn, and forms the winter solstice.

DAYS OF THE WEEK.

SUNDAY, (Saxon) Sunnandæd, day of the sun. MONDAY, (German) Montag, day of the moon.

TUESDAY, (Anglo-Saxon) Tiwesdæg, from Tiw, the god of war.

WEDNESDAY, (Anglo-Saxon) Wodnesdæg, from Odin, the god of storms.

THURSDAY, (Danish) Thor, the god of thunder.

FRIDAY, (Saxon) Frigedæg, day of Freya, goddess of marriage.

SATURDAY, the day of Saturn, the god of time.

The names of the seven days of the week originated with the Egyptian astronomers. They gave them the names of the sun, moon, and five planets, viz.: Mars, Mercury, Jupiter, Venus and Saturn.

WOULD YOU BE BEAUTIFUL?

In womanly beauty the excellences expected and looked for are faultless symmetry of form, feature and complexion, varying in hue as the mind is affected by internal emotion, but with an expression of purity, gentleness, sensibility, refinement and intelligence.

Moore, the poet, has given expression to his ideal of beauty in the following lines:

"This was not the beauty—Oh, nothing like this, That to young Nourmahal gave such magic bliss; But that loveliness, ever in motion, which plays Like the light upon autumn's shadowy days.

"Now here and now there, giving warmth as it flies From the lips to the cheek, from the cheek to the eyes; Now melting in mist, and now breaking in gleams Like the glimpses a saint has of heavenly dreams."

Wordsworth also expressed himself in the following lines:

"He was among the prime in worth, An object beauteous to behold: Well born, well bred; I sent him forth Ingenuous, innocent, and bold."

Perhaps you ask how you can attain beauty if you do not possess it? or, if you have some of its qualities, how you may get those you are lacking. If you will practice the following rules you will grow more and more beautiful in the eyes of others, even if age does bring gray hair and a wrinkled skin.

First.—Cleanliness is next to godliness. Practice it in every feature of your daily life.

Second.—Have some purpose to achieve and steadfastly work

to attain it.

Third.—Cultivate self-discipline; be master of your passions,

under all circumstances.

Fourth.—Study to know the laws of life that yield harmony and good health and obey them. Look on the bright side of life always.

Fifth.—Avoid intemperance in all things.

Sixth.—Cultivate every mental and bodily quality that will make you firm in goodness, strong and physically able to be useful to your kind, generous and broad-minded, self-sacrificing, and you will daily and hourly be lovely and grow into the beautiful.

WOULD YOU BE BEAUTIFUL?

CARE OF THE SCALP AND HAIR.

Beautiful hair, beautiful skin and a beautiful form, the three graces which are the birthright of every woman, but which, through lack of good judgment and common sense, or through thoughtlessness on the part of mothers of growing children, comparatively few possess.

Beautiful hair is one of nature's greatest gifts, and yet we never seem to appreciate it until there is danger of losing it, or until it becames faded and lusterless because we have not

used the right means for preserving it.

The beauty and continuance of the hair depend upon its proper nourishment, gained by the circulation of blood through the scalp, and this must be maintained to keep the hair in

good condition.

The structure of the hair is very beautiful, and each hair is contained in a delicate sheath which fits into a slight depression in the skin called the follicle, and around the base of the hair nature has provided glands to secrete oily matter, the

purpose of which is to keep the hair glossy.

In early maturity the hair reaches the state of greatest beauty, and at this time the greatest care should be given it, feeding and nourishing it as we would a plant—giving it plenty of air and sunlight, carefully shampooing at least once in ten days. Massage the scalp to keep it loose and flexible. Use electricity, a good tonic, and occasionally singe the split ends.

If this process is commenced at the right time, the result will be fewer cases of baldness in men and thin, poor hair in women.

The hair should also be worn loosely, forming a soft frame for the face, which is always more becoming than tightly drawn hair. Many people drag the hair out by the roots by tying back too firmly.

CARE OF THE SKIN.

A beautiful skin is smooth, soft and clear; the color varies in different individuals. In perfect health it is moist and with the delicate shading of a flower—climate, hair and eyes, of course, determining the color, and the continued beauty of it depending on pure blood, fresh air and sunlight, also perfect cleanliness and care.

The pores should always be kept free from obstruction and extremes of heat and cold avoided as much as possible. In health, the care of the skin is a simple matter, massage being

a great factor, assisted always by the use of pure creams. A good cleansing cream is a great necessity, as it enters the pores and frees them from dirt, leaving the skin soft and pliable, in which condition it is ready to absorb the skin food when the finger massage is given, making it possible for the gentle electric current to force the ointment into the deeper layers of the skin, thus effecting the removal of moth patches, tan, freckles and other discolorations and imperfections. The vibratory massage should follow, the purpose of which is to stimulate the tissues, throwing off worn-out particles and increasing the circulation of the blood by giving proper exercise to the facial muscles, thereby restoring and preserving the color and contour, making the skin beautiful, clear, eradicating and preventing wrinkles.

The use of a pure face powder is absolutely necessary; best results are obtained by using a blended powder, as the skin

tint is thus assured.

TO DEVELOP THE BUST.

A beautiful bust is the desire and admiration of every woman. If nature has not been kind in this respect, any woman can develop a beautiful bust by exercise, bathing and gentle massage with a good bust ointment or skin food.

Electric massage is very beneficial, and if properly given,

brings quick and sure results.

Swimming and deep breathing are great aids.

CARE OF THE HANDS.

A study of the hand is very interesting, and if mothers understood more of its beautiful construction many of the little accidents which result in deformed finger nails could be avoided. Mothers should attend most carefully to the early cultivation of their children's finger nails, as the habit of biting them is so easily formed and is sure to permanently destroy their beauty.

A perfect hand is rounded and plump, soft, white and dimpled, with tapering finger tips and filbert-shaped nails, showing

the little half-moon.

It is possible for any woman to have such a hand if she is willing to take time once a week to have the nails treated

and to give them a little personal attention each day.

Great care should be taken in washing the hands. A mild soap should be used, and particular attention paid to the thorough drying of them, after which a good cuticle cream

WOULD YOU BE BEAUTIFUL?

should be applied and well rubbed in. The same cream may be used to loosen the cuticle at the base of the nail, when it can be gently pushed back, thus keeping the half-moon exposed. An orange wood stick should always be used to clean the nails.

Massaging the hands at least once a month aids wonderfully in making them symmetrical and keeping the joints flexible and the skin free from dark spots and wrinkles.

MAXIMUM AGE OF DIFFERENT TREES.

•			Years.
Palm	250	Chestnut	860
Elm		Walnut	900
Cypress		Lime	1 076
Ivý	448	Spruce	1 200
Maple		Oak	1 600
Larch	576	Olive	2,000
Lemon		Yew	2 880
Plane		Baobab	5.100
Cedar	800	Dragon	5.900
Eucalyptus, or Austr	'alian gum-	tree, sometimes grows	twen-
ty-four feet in three m	onths; bam	boo, two feet in twen	ty-four
houra			0

nours.

PRESIDENTS OF THE UNITED STATES OF AMERICA.

Declaration of Independence	Tulv	4th	1776
General Washington, first President	1780	and	170?
John Adams	.1109	anu	1797
Thomas Informan	4004	~	1/9/
Thomas Jefferson	.1801	and	1805
James Madison	.1809	and	1813
James Monroe	.1817	and	1821
John Quincy Adams			1825
General Andrew Jackson	.1829	and	1833
Martin Van Buren			1837
General William Henry Harrison (died 4th April).	•		1841
John Tyler (elected as Vice-President)	•		1841
James Know Polk	•		
James Knox Polk	•		1845
General Zachary Taylor (died 9th July, 1850)			1849
Millard Fillmore (elected as Vice-President)			1850
General Franklin Pierce			1853
James Buchanan			1857
Abraham Lincoln (assassinated 14th April, 1865)	.1861	and	1865
Andrew Johnson (elected as Vice-President)	-1001		1865
General Ulysses S. Grant	1860	and	1973
Rutherford B. Hayes	.1000	anu	1877
General J. Abram Garfield (died 19th September, 1883)			
General J. Apram Garnera (alea 19th September, 188)	.)		1881
General Chester A. Arthur (elected as V-Pres	•		1881
Grover Cleveland			1885
Benjamin H. Harrison	•		1889
Grover Cleveland			1893
William McKinley (elected)			1897
(Re-elected)			1901
(Assassinated September 14, 1901).			1001
Theodore Roosevelt (elected Vice-President)			1901
(Posamo Prosident Contember 11)	•		
(Became President September 11)	•		1901
Theodore Roosevelt (elected)	•		1905
000			

FACTS ABOUT THE LIBERTY BELL.

Cast by Thomas Lester, Whitechapel, London.

Arrived in Philadelphia in August, 1752.

First used in statehouse, Philadelphia, Aug. 27, 1752.

Twice recast by Pass & Snow, Philadelphia, to repair crack, September, 1752.

Muffled and tolled Oct. 5, 1765, on arrival of ship Royal

Charlotte with stamps.

Muffled and tolled Oct. 31, 1765, when stamp act was put in operation.

Summoned meeting to prevent landing of cargo of tea from

the ship Polly Dec. 27, 1774.

Summoned meeting of patriots April 25, 1775, after battle of Lexington.

Proclaimed declaration of independence and the birth of

a new nation at great ratification meeting July 8, 1776.

First journey from Philadelphia made in September, 1777, to Allentown, Pa., to escape capture by the British; returned June 27, 1778.

Proclaimed treaty of peace April 16, 1783.

Tolled for the death of Washington Dec. 26, 1799.

Rung on the fiftieth anniversary of the declaration of independence July 4, 1826.

Last used in tolling for the death of John Marshall July 8,

18<u>3</u>5.

Principal tours: To New Orleans in 1885; Chicago, 1893; Atlanta, 1895; Boston, 1902; St. Louis, 1904.

MODERN FABLES.

LUXURY.

Of two cats, one thinking to be very fine, hunted only humming birds, and the other hunted only mice. The first had to hunt much longer than the other, because humming-birds were scarce, so that it spent nearly all its life in getting food, while the other had little trouble to get all it wanted. "How unfortunate it is," said the first cat, "that I have formed my liking for what is so hard to get, and is so little when I have it."

FASTIDIOUSNESS.

A fastidious ox would not drink water standing in the water with his head turned down stream lest he should soil the water with his feet. But once when drinking with his head turned up stream he saw a whole drove of hogs washing in the water above him.

MODERN FABLES.

ATTRACTING ATTENTION.

A flea, which saw many people trying to get the attention of a king and waiting long for that purpose, said: "Though I am but a little thing, I will get his attention." So he jumped up the throne until he got on the king's head. Here he received recognition from the king by a slap, and when he boasted to a dog of his success, the latter said: "Some get attention by their merit, others by their demerit. In making yourself a nuisance you got recognition before the lords of the realm, but only as a flea."

GAMBLING.

A monkey playing with a steel trap got his tail cut off. He went back the next day to get his tail, when he got his foot cut off. "Now," he said, "I will go back and get both my foot and my tail." He went back, and the third time he got his head cut off, which ended his monkeying with the trap.

MUGWUMPERY.

A mule on one side of a fence was discontented because he was not on the other side. He finally jumped over, when he was equally discontented because he was not back again. "Which side of the fence do you want to be on?" asked a horse. "It does not matter," replied the mule, "provided I am on the other side."

THE NON-PARTISAN.

A dog, running about in an irregular way, was asked where he was going. "I am not going anywhere," replied the dog, "but only running about to learn where to go."

PARTISANSHIP.

The swans, wishing to drive the peacocks from a park, procured a law against big feet. The peacocks retaliated by getting a counter law against big necks. Soon one side could see nothing but ugly feet, and the other nothing but long necks. At last they came to think peacocks were all feet and swans all neck.

WHAT HOUSEKEEPERS SHOULD REMEMBER.

That cold rain water and soap will remove machine grease from washable fabrics.

That fish may be scaled much easier by first dipping them into boiling water for a minute.

That fresh meat beginning to sour will sweeten if placed outdoors in the cool air over night.

WHAT HOUSEKEEPERS SHOULD REMEMBER.

That milk which has changed may be sweetened or rendered fit for use again by stirring in a little soda.

That a tablespoonful of turpentine boiled with your white

clothes will greatly aid the whitening process.

That kerosene will soften boots and shoes that have been hardened by water and will render them as pliable as new.

That thoroughly wetting the hair once or twice with a solu-

tion of salt and water will keep it from falling out.

That salt fish are quickest and best freshened by soaking

in sour milk.

That salt will curdle new milk; hence, in preparing porridge, gravies, etc., salt should not be added until the dish is prepared.

That one teaspoonful of ammonia to a teacup of water, applied with a rag, will clean silver or gold jewelry perfectly.

That paint stains that are dry and old may be removed from cotton and woolen goods with chloroform. It is a good plan to first cover the spot with olive oil or butter.

That clear boiling water will remove tea stains; pour the water through the stain and thus prevent it spreading over

the fabric.

That charcoal is recommended as an absorbent of gases in the milk-room where foul gases are present. It should be freshly powdered and kept there continually, especially in hot weather, when unwholesome odors are most liable to infect the milk.

That applying kerosene with a rag, when you are about to put your stoves away for the summer, will prevent them from rusting. Treat your farming implements in the same way before you lay them aside for the fall.

That a teaspoonful of borax, put in the last water in which clothes are rinsed, will whiten them surprisingly. Pound the borax so it will dissolve easily. This is especially good to remove the yellow that time gives to white garments that have been laid aside for two or three years.

That a good agency for keeping the air of the cellar sweet and wholesome is whitewash made of good white lime and water only. The addition of glue or size, or anything of that kind, only furnishes organic matter to speedily putrefy. The use of lime in whitewash is not only to give a white color, but it greatly promotes the complete oxidation of effluvia in the cellar air. Any vapors that contain combined nitrogen in the unoxidized form contribute powerfully to the development of disease germs.

OCCUPATIONS IN THE UNITED STATES.

(CENSUS OF 1900.)

		ř	
Actors	8,392	Dyers	17,904
Actresses	6,418	Electricians	50,782
Agents	241,333	Electro-platers	6,387
Agents (station)	45,992	Elevator tenders	
Agricultural laborers	1 450 946	Engineers (civil)	12,691
Architecta		Engineers (civil)	43,535
Architects	10,604	Engineers and firemen	
Artists and art teachers	24,902	_(not railway)	224,546
Authors	6,058	Engineers and firemen	
Baggagemen	19,085	(railway)	107,150
Bakers	79,407	Engravers	11,156
Bankers and brokers	73,384	Farmers5	.681.257
Barbers	131,383	Firemen (fire depart-	, 00=,=0.
Bartenders	88,937	ments)	14,576
Blacksmiths	227,076	Fishermen	73,810
Boarding-house keepers	71,371	Foremen and overseers	
Boilermakers		Furnitum faction and Verseers	55,503
Dool-hindons	33,087	Furniture fact'y empl'yes	23,078
Bookbinders	30,286	Gardeners	62,418
Bookkeepers	255,526	Glassworkers	49,999
Boot and shoe dealers	15,239	Glovemakers	12,276
Boot and shoe makers	209,056	Gold and silver workers	26,146
Bottlers	10,546	Harnessmakers	40,193
Boxmakers (paper)	21,098	Hat and cap makers	22,733
Brakemen	67,492	Hostlers	65,381
Brass workers	26,760	Hotelkeepers	54,931
Brewers and maltsters	20,984	Housek'p's and stewards	155,524
Brick and tile makers	49,934	Iron and steel workers	203,295
Broom and brush makers	10,222	Tonitors	
	56,935	Janitors	51,226
Builders and contractors.		Journalists	30,098
Butchers	114,212	Knitting-mill oper'tives	47,120
Butter and cheese mak'rs	19,261	Laborers (general)2	
Cabinetmakers	35,641	Laborers (railroad)	249,576
Carpenters and joiners	602,741	Laundry employes	387,013
Carpet factory empl'yes	19,388	Lawyers	114,703
Carriage and hack driv'rs	36,794	Lead and zinc workers	5,335
Charcoal and coke burn's	14,476	Leather curriers and tan-	
Chemical workers	14,814	ners	42,684
Chemists	8,887	Librarians	4,184
Cigar dealers	15,367	Liquor merchants	13,119
Clergymen	111,942	Lithographers	7,956
Clerks and copyists	632,099	Liverymen	33,680
Cleak and watch makers		Toolsamitha minmolsona	00,000
Clock and watch makers	24,188 18,097	Locksmiths, gunmakers,	7,432
Clothing dealers		etc	1,404
Coal and wood dealers		Longshoremen	20,934
Commercial travelers	92,936	Lumber dealers	16,774
Compositors	36,849	Lumbermen	72,190
Conductors (steam road)	42,935	Machinists	283,432
Confectioners	31,242	Marble & stone cutters	54,525
Coopers	37,226	Masons, stone & brick	161,048
Copper workers	8,188	Merchants (wholesale)	42,310
Cotton mill operatives	246,004	Messengers	44,460
Dairymen	10,931	Millers	40,576
Dentists	29,683	Milliners	87,881
Designers and draftsmen	18,956	Miners (coal)	344,292
		Minora (cold 2- cilyon)	59,095
Distillers and rectifiers	3,145	Miners (gold & silver)	
Dressmakers	347,076	Model & pattern makers	15,083
Dry-goods dealers	45,840	Molders	87,504
Druggists	57,346	Musicians and teachers	92,264

OCCUPATIONS IN THE UNITED STATES.

5,394

Nurses (trained)	11,892	Shirt, collar and cuff	00 400
Office boys	16,727	makers	39,432
Officials (bank)	74,246	Showmen (professional)	16,625
Officials (government)	90,290	Silk-mill operatives	54,460
Oil well and works	24,626		126,744
Painters and glaziers	277,990	Stenographers	98,827
Packers and shippers	59,769	Stereotypers	3,172
Paperhangers	22,004	Stock raisers	85,469
Paper-mill operatives	36,329	Storekeepers (general)	33,031
Doddlong	76,872	Storekeepeers (grocery)	1 56,557
Peddlers	27,029	Stovemakers	12,473
Photographers		Street-railway employes.	68,936
Physicians & surgeons	132,225	Switchmen, yardmen, etc.	50,241
Plasterers	35,706	Tailors	230,277
Plumbers and fitters	97,884		439,522
Policemen	116,615		504,321
Porters	54,274	Telegraph operaters	55,885
Potters	16,140	Telephone operators	19,195
Printers and pressmen	103,855	Theatrical managers	3,488
Produce dealers	34,194		70,613
Professors in colleges	7 ,275	Tin workers	131,464
Publishers	10,970		28.122
Quarrymen	34,598	Tool and cutlery makers	
Restaurant keepers	34,023	Trunkmakers	3,657
	9,068	Typewriters	13,637
Roofers and slaters		Undertakers	16,200
Salesmen & salesladies	611,787	Upholsterers	30,839
Sailors	61,873	Veterinary surgeons	8,190
Saloonkeepers	83,875		107,430
Saw -mill employes	161,687	Wheelwrights	13,539
Seamstresses	151,379	Wireworkers	18,487
7	459 010	Tiranian mili amamatimas	73,196
Servants1	,400,010	Woolen-mill operatives	19,130
			10,130
		QUEENS OF ENGLAND.	10,130
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FRENCH DYNASTIES AND SOVEREIGNS.

THE MEROVINGIANS.	
Clovis, "The Hairy," King of the Salic Franks	481
Childeric III, last of the race	742
THE CARLOVINGIANS.	
Pepin, "The Short," son of Charles Martel	752
Charlamange the Great, Emperor of the West	768
Louis V, "The Indolent," last of the race	986
THE CAPETS.	
Hugh Capet. "The Great"	987
Hugh Capet, "The Great" Louis IX, "St. Louis"	1226
Charles IV, "The Handsome"	1322
THE HOUSE OF VALOIS.	
Philip VI, de Valois, "The Fortunate"	1328
Henry III, last of the race	1574
THE HOUSE OF BOURBON.	TOLX
Henry IV, "The Great," King of Navarre	1589
Louis XIII. "The Just"	1610
Louis XIII, "The Just" Louis XVI, "The Great" Dieudonne	1643
Louis XVI, "The Great" DieudonneLouis XV, "The Well-beloved"	1715
Louis XVI, (guillotined 21st January, 1793)	1774
Louis XVII, (never reigned)	1793
THE FIRST REPUBLIC.	
The National Convention first sat 21st September	1792
The Directory Nominated 1st November	1795
THE CONSULATE.	
Bonaparte, Cambaceres, and Lebrun, 24th December	1799
Bonaparte Consul for ten years, 6th May	1802
Bonaparte Consul for life, 2d August	1802
THE EMPIRE.	4004
Napoleon I, decreed Emperor, 18th May	1804
Napoleon II (never reigned) died 22d July	1832
THE RESTORATION.	4044
Louis XVIII re-entered Paris, 3d May, 1814	1814
Charles X (deposed 30th July, 1830, died 6th November, 1836.	1824
THE HOUSE OF ORLEANS.	
Louis Philippe, King of the French (Abdicated 24th Febru-	1830
ary, 1848, died 26th August, 1850	1000
heir to the House of Bourbon)	1838
THE SECOND REPUBLIC.	
Provisional Government formed 22d February	1848
Louis Napoleon elected President, 19th December	1848
THE SECOND EMPIRE.	
Napoleon III elected Emperor 22d November, (Deposed 4th	
September, 1870, died 9th January, 1873)	1852
THIRD REPUBLIC.	
Committee of Public Defense, 4th September	1870
I. A. Thiers elected President, 31st August	1871
Marshal McMahon elected President, 24th May	1875
Marshal McMahon elected President, 24th May Jules Grevy (first) elected President, 30th January	1879
Sadi-Carnot elected President, 4th December	1887
Jean Casimir elected President, June 27	1894
Felix Francois Faure elected President, Jan. 17	1895
Emile Loubet elected President, Feb. 18	1899

EMPERORS OF RUSSIA.

1689 Peter I.
POPES OF ROME.
Peter-Clement—Linus 1st Pope 42-66 Benedict XIII Orsini 1724 Clement XII Corsini 1730 Benedict XIV Lambertini 1740 Clement XIII Rezzonico 1758 Clement XIV Ganganelli 1769 Pius VI Braschi 1775 Pius VII Chiaramonti 1800 Leo XII Genga 1823 Pius VIII Castiglioni 1829 Gregory XVI Capellari 1831 Pius IX Mastai-Ferretti 1846 Leo XIII Pecci 1878 Pius X Sarto 1903
AUSTRIA-HUNGARY.
Jose I, Son of Emperor Leopold. 1705 Charles VI, Brother of preceding. 1711 Maria-Theresa of Hungary and Bohemia 1740 Charles VII, Elector of Bavaria. 1742 Francis I, Husband of Maria Theresa. 1745 Joseph II, Son of Preceding. 1765 Leopold II, Brother of preceding. 1790 Francis II Last Emperor of Germany 1792 Francis I First Emperor of Austria. 1804 Ferdinand (Abdicated) 1835 Francis Joseph (Nephew) 1848
GERMANY—PRUSSIA.
Albert I, First Elector of Brandenburg

HOW THE PRESIDENTS DIED.

George Washington.—His death was the result of a severe cold contracted while riding around his farm in a rain and sleet storm on Dec. 10, 1799. The cold increased and was followed by a chill, which brought on acute laryngitis. His death occurred on Dec. 14, 1799. He was sixty-eight years of age.

John Adams.—He died from old age, having reached his ninety-first milestone. Though active mentally, he was nearly blind and unable to hold a pen steadily enough to write.

He passed away without pain on July 4, 1826.

Thomas Jefferson.—He died at the age of eighty-three, a few hours before Adams, on July 4, 1826. His disease was chronic diarrhæa, superinduced by old age, and his physician said the too free use of the waters of the white sulphur springs.

James Madison.—He too died of old age, and peacefully, on June 28, 1836. His faculties were undimmed to the last. He

was eighty-five.

James Monroe.—At the time of his death, which occurred in the seventy-third year of his age, on July 4, 1831, it was

assigned to no other cause than enfeebled health.

John Quincy Adams.—He was stricken with paralysis on Feb. 21, 1848, while addressing the speaker of the House of Representatives, being at the time a member of Congress. He died in the rotunda of the Capitol. He was eighty-one years of age.

Andrew Jackson.—He died on June 8, 1845, seventy-eight years old. He suffered from consumption and finally dropsy, which made its appearance about six months before his

death.

Martin Van Buren.—He died on July 24, 1862, from a violent attack of asthma, followed by catarrhal affections of the

throat and lungs. He was eighty years of age.

William Henry Harrison.—The cause of his death was pleurisy, the result of a cold, which he caught on the day of his inauguration. This was accompanied with severe diarrhæa, which would not yield to medical treatment. His death occurred on April 4, 1841, a month after his inauguration. He was sixty-eight years of age.

John Tyler.—He died on Jan. 17, 1862, at the age of seventy.

two. Cause of death, bilious colic.

James K. Polk.—In the spring of 1849 he was stricken with a slight attack of cholera while on a boat going up the Mississippi river. Though temporarily relieved, he had a

HOW THE PRESIDENTS DIED.

relapse on his return home and died on June 15, 1849, aged

fifty-four years.

Zachary Taylor.—He was the second President to die in office. He is said to have partaken immoderately of ice water and iced milk, and then later of a large quantity of cherries. The result was an attack of cholera morbus. He was sixtysix years old.

Millard Fillmore.—He died from a stroke of paralysis on

March 8, 1874, in his seventy-fourth year.

Franklin Pierce.—His death was due to abdominal dropsy, and occurred on Oct. 8, 1869, in the sixty-fifth year of his age.

James Buchanan.—His death occurred on June 1, 1868, and was caused by rheumatic gout. He was seventy-seven years

of age.

Abraham Lincoln.—He was shot by J. Wilkes Booth at Ford's Theatre, Washington, D. C., on April 14, 1865, and died the following day, aged fifty-six.

Andrew Johnson.—He died from a stroke of paralysis July

31, 1875, aged sixty-seven.

U. S. Grant.—He died of cancer of the tongue, at Mt. McGregor, N. Y., July 23, 1885.

James A. Garfield.-Was shot by Charles J. Guiteau on July 2, 1881. Died Sept. 19, 1881.

Chester A. Arthur.-Who succeeded Garfield. Died sud-

denly of appoplexy in New York City, Nov. 18, 1886.

Rutherford B. Hayes.—Died Jan. 17, 1893, the result of a severe cold contracted in Cleveland, Ohio.

Benjamin Harrison.—Died March 13, 1901. Cause of death,

pneumonia.

William McKinley.-Was assassinated Sept. 14, 1901.

INFANT FEEDING AND MANAGEMENT.

It is of prime importance in feeding an infant to do this at regular intervals, since during the first three months of its life the feeding habits of the child should be established, and if care be used in this regard the child will wake himself at the proper time. The last meal at night should be II P. M.. and if the child is healthy and will sleep it need not be fed until 3 or 5 A. M. the following morning. In both breast and artificial feeding the above applies, and the same method should be employed; namely, the child should be held in the arms during the meal, which should last from ten to fifteen minutes.

Both in breast and artificial feeding it is possible to over-feed

the child. Many infants are systematically over-fed. The young mother should understand how small an infant's stomach is. At birth it will hold a little more than an ounce of fluid, or two tablespoonfuls, and at the end of two months only three ounces. If, therefore, the mother persists in trying to give the child four ounces of food, the child will suffer from an excess. Many children during the first few months of life bring up their food, and the mother fears that there is some inherited tendency to weak digestion. It is wrong to feed a child simply because it cries, as very frequently it is not a cry of hunger, but one caused by indigestion from over-feeding.

If the child is being fed with the bottle it is important that the food be given at a temperature of 100 F., or as nearly that as possible; never over, and if the child be fed out of doors in its carriage it is well to have a flannel bag of some kind to slip over the bottle to keep it at the same temperature until the meal is finished. Many cases of colic are caused by inattention to this point.

It is a common mistake that when a child cries it needs additional food. There are many cases where a little drink of water is the prime need of the child, and great care should be taken that this be heated to the proper temperature, and especially that no water be givn to the child except that which has been boiled. A few teaspoonfuls should be given to the child, therefore, several times a day, but aside from that he should have nothing but his regular food until he is at least a year old. For the same reason, therefore, if a child be fed by the bottle, the water used in preparing the food should have been previously boiled, and care should be exercised not to expose the food to the air during or after its preparation. It should be remembered that the food of a child must be nutritious, and that in this food, especially when at the proper temperature for the infant, bacteria from the air will flourish wonderfully fast, and therefore the food should not be exposed to possible contamination.

It is of very great importance that the feeding bottles be always clean and sweet. It is an advantage to have several bottles on hand, and also two or three brushes for cleaning. Keep a special vessel with water in which there is a little Bicarbonate of Soda, so that the moment the bottle is used it may be thoroughly washed and kept in the water. Do not use a nipple with a rubber tube, but use the short, black rubber nipples, which fit over the mouth of the bottle. Do not

INFANT FEEDING AND MANAGEMENT.

enlarge the hole in the nipple, so as to make it too easy for the baby to draw its food, otherwise the food being taken so rapidly into the stomach will often cause pain or vomiting. In washing the nipples turn them inside out and see that they are as thoroughly cleaned as possible, and keep them for use in a bottle filled with boiled water with a pinch of boric acid added.

THE FIRST NURSING. It is very important that the child should be put to the breast immediately after it is washed. This is very necessary, both for the mother and the child, and prevents subsequent troubles. The fluid contained in the breast is at this stage called colostrum, and is intended by Nature to act upon the child as a laxative. This first nursing stimulates the secretion of the milk and causes uterine contraction, which is very much needed at this time. It is well to wash the infant's mouth out with sterilized water every time it feeds. For this purpose use clean water which has been boiled and allowed to cool, or a solution of boric acid in boiled water—5 grains to the ounce of water.

Infants, as a rule, should be bathed once a day, but never immediately after being nursed or fed. In very warm weather a child may be sponged in the evening as well as in the morning. The water for the bath of a young baby should be warm, and the temperature can be judged by testing it with the elbow, which is more sensitive than the hand. Lay a small blanket on the lap, cover the child with a flannel and sponge it under the clothes. This prevents it from taking cold from

exposure. The room should not be cooler than 68 F., and the door must be kept closed to avoid drafts. Use only pure white soap, and a soft cloth is better than a sponge. The body

should be carefully dried and lightly powdered to absorb any moisture that may remain.

THE PANAMA CANAL. CHRONOLOGY.

First exploration of route, 1527. Advocated by Humboldt, 1803. Panama railroad built, 1850-55.

Panama Canal company formed by De Lesseps, 1879.

Work on canal begun Feb. 24, 1881. Canal company failed Dec. 11, 1888.

De Lesseps and other sentenced to prison for fraud Feb. 9, 1893.

New French canal company formed October, 1894.

THE PANAMA CANAL.

De Lesseps died Dec. 7, 1894.

Hay-Pauncefote treaty superseding the Clayton-Bulwer treaty signed Nov. 15, 1901; ratified by senate Dec. 16; ratified by Great Britain Jan. 20, 1902.

Canal property offered to the United States for \$40,000,000

Jan. 9, 1902; accepted Feb. 16, 1903.

Bill authorizing construction of canal passed by house of representatives Jan. 9, 1902; passed by senate June 19, 1902; approved June 28, 1902.

Canal treaty with Colombia signed Jan. 22, 1903; ratified by senate March 17, 1903; rejected by Colombia Aug. 12, 1903.

Revolution in Panama Nov. 3, 1903.

Canal treaty with Panama negotiated Nov. 18, 1903; ratified by republic of Panama Dec. 2, 1903; ratified by United States senate Feb. 23, 1904.

Canal commissioners appointed Feb. 29, 1904.

Papers transferring canal to the United States signed in

Paris April 22, 1904.

Bill for government of canal zone passed by the senate April 15, 1904; passed by the house April 21; approved April 26.

Canal property at Panama formally turned over to the

United States commissioners May 4, 1904.

President outlines rules for the government of the canal zone and war department takes charge of the work May 9, 1904.

Gen. George W. Davis appointed governor of canal zone

May 9, 1904.

John F. Wallace appointed chief engineer May 10, 1904.

Republic of Panama paid May 21, 1904.

First payment of \$40,000,000 to French canal company made May 24, 1904.

PANAMA CANAL TREATY.

Signed at Washington, D. C., Nov. 18, 1903.

Ratification advised by the senate Feb. 23, 1904.

Ratified by the president Feb. 25, 1904.

Ratified by Panama Dec. 2, 1903.

Ratifications exchanged at Washington, D. C., Feb. 26, 1904. Proclaimed Feb. 26, 1904.

PLAN AND COST OF CANAL.

The canal is to extend from Colon on the Atlantic side to the city of Panama on the Pacific side, a distance of forty-six miles. It is to be deep and wide enough to accommodate the largest ocean vessels. It was the original idea to have a sea-level canal, but this was abandoned in favor of a lock canal. The plans of the French company purchased by the United States are subject to change by the commissioners, but it is thought that they will be followed in the main. According to these the bottom of the summit level of the canal will have an altitude of 68.08 feet above mean sea level. This level, which is in the Culebra mountain, is to be 318.35 feet long and 118.11 feet wide at the bottom. The next level, from Obispo to Bohio, with a bottom width of 164 feet, is 13.37 miles long. At Bohio a group of double locks empties into the Atlantic level, which has a width of 98.4 to 111.5 feet on the bottom and a length of 14.84 miles.

On the Pacific side the summit level terminates at Paraiso with one double lock. The adjacent level from Paraiso to Pedro Miguel is 7,963 feet long and terminates with one double lock. The Pacific level extends 4.69 miles to La Boca, beyond which a channel 3.36 miles long is excavated to deep water. All the locks are to be double, the working length for both being 738.22 feet. The width of one of the twin locks is to be 82.02 feet, and the width of the other is 59.05

feet, with an intermediate gate.

The slopes of the canal, especially in the deep central trench, are to be protected by stone revetments. Of the forty-six miles of the canal 26.75 are straight and fifteen have radii equal to or not exceeding 9,850 feet. The curvatures are

gentle, the smallest radius being 8,200 feet.

The Chagres river is to be controlled by two great dams which will capture and control the floods, supplying the summit level with water during the dry season, feeding the canal and furnishing hydraulic power for operating the locks and lighting the entire length of the waterway by night. One of the dams will be at Bohio on the canal and the other at Alhajuela, on the upper Chagres, nine and one-third miles from the canal. The Bohio dam will form a lake covering an area of 21.5 square miles with a normal level of 55.75 feet above mean tide. The other dam will form a reservoir covering ten square miles. It will be about 164 feet bave the canal.

It will take a vessel about twelve hours to traverse the canal from end to end.

The total cost of constructing the Panama canal, not including the payments for work done and for the concession, has been estimated at about \$145,000,000. The annual cost of maintenance will be \$2,000,000.

THE CARE OF THE TEETH.

HOW AND WHY THE TEETH DECAY.

Caries, or decay, commences externally, appearing upon the enamel or bony structure of the teeth. Usually it is the result of chemical action produced by decomposition of food. Acids found in some fruits will cause decay if allowed to remain in contact with the teeth. Then there are the natural mouth acids, which, although not strong, are none the less effective if allowed to remain long enough around the teeth. Microscopical examinations have shown that the secretions of almost every person's mouth contain more or less vegetable and animal life that will withstand the application of acids and astringents and will only succumb to alkalies. A dentifrice or mouth wash should be alkaline.

TOOTHACHE.

Its origin is not always due to an exposed nerve, for in the majority of teeth extracted because they are painful the nerve is dead. Inflammation is the cause of trouble.

A toothache due to inflammation is a steady, aggravating pain, overspreading the affected side of the face, sometimes even the neck and shoulder. As there is no nerve to kill in a case of this kind, the tooth should be treated until cured, or removed upon the first symptom of trouble. Its extraction would be unattended by any danger and would afford welcome relief.

Tartar, a creamy, calcareous deposit, supposed to be from the saliva, will sometimes cause toothache. It accumulates around the necks of the teeth and eventually becomes hard and dark colored. It also causes foul breath and loosens the gums from the teeth, causing them to present an unsightly appearance.

THE TEETH OF CHILDREN.

Children have twenty temporary teeth, which begin making their appearance about the sixth or seventh month. The time varies in different children. This is the most dangerous and troublesome period of the child's existence, and every parent will do well to consult a reputable dentist. About the second or third year the temporary teeth are fully developed. They require the same care to preserve them as is exercised toward the permanent set.

About the sixth year, or soon after, four permanent molars, or double teeth, make their appearance. Some parents mis-

THE CARE OF THE TEETH.

takenly suppose these belong to the first set. It is a serious error. They are permanent teeth, and if lost will be lost forever. No teeth that come after the sixth year are ever shed.

Let every parent remember this.

At twelve years the second set is usually complete, with the exception of the wisdom teeth, which appear anywhere from the eighteenth to the twenty-fourth year. When the second set is coming in the beauty and character of the child's countenance is completed or forever spoiled. Everything depends upon proper care at this time to see that the teeth come with regularity and are not crowded together. The teeth cannot have too much room. When a little separated they are lest liable to decay.

DENTIFRICES—USEFUL AND INJURIOUS.

The habit of caring for the teeth daily, and if possible after each meal, should be established early in life. Those who have neglected to do so should lose no time in consulting a reputable dentist, and then persistently caring for their teeth day by day. Children especially should be taught to use the tooth-brush and some reliable dentifrice. The more pleasant the preparation the easier it will be to teach them its daily use. A fragrant, refreshing liquid is recommended, as it is a mouth wash as well as a tooth cleanser. The habit thus formed, neglected for even a single day, will make the mouth feel decidedly uncomfortable.

CLEANSING THE TEETH.

Preparations for cleansing the teeth and purifying the mouth should be free from all acids, and should be saponaceous or soapy, containing as one of the principal ingredients an alkali to neutralize the acids and destroy the animal and vegetable parasites, which, as the microscope would show us, are

in the secretions of almost every person's mouth.

A finely triturated powder having slight abrasive properties, but free from dangerous grit, should be used as the complement of a liquid. One way to use both is to pour on the wet brush or into the palm of the hand a sufficient quantity of powder and moisten it with the liquid. Occasionally the powder or the liquid alone could be employed. Be careful to use a liquid and a powder of established reputation.

Beware of thy teeth.
Take good care of thy teeth,
And they will take good care of thee.

A Remarkable Coincidence

N THE Overland Limited one dry, hot dusty day in the latter part of August, 1904, the attention of one of the gentlemen occupants of the Pullman was called to a lady whose appearance denoted a long residence under Asiatic skies. She appeared much perturbed and searched with

much agitation for some missing article, the loss of which evidently caused her great distress. The gentleman, tendering his good offices, was astounded to be informed that no one could be of the least assistance nearer than Bombay or Calcutta, where, by the carelessness of her maid, had been left behind her charm "odor case" containing her collection of sacred perfumed woods, powders and balms, which used upon the person and clothing were known to be an infallible safeguard against contracting contagious or infectious diseases. Fortunately the gentleman, who was a confirmed globe-trotter, had in his gladstone the identical articles, the loss of which was causing his fair companion so much trepidation, and it was a pleasure for him to at once relieve her anxiety by insisting that she accept a share of his abundant supply of Violetia, the most lasting and natural odor of Violets ever produced in perfumery, together with a portion of his Violette de Parme Toilet Water, the most exquisite toilet requisite diffusing a delightful odor of Violets. Not forgetting a complement of Poudre de Riz, the most perfect face adornment which leaves a velvety finish and delicate perfume to the skin, absolutely harmless and invisible, and used in connection with Perpetua Sachet Powder, a most beautiful reproduction of the sacred scented woods of the Orient in dry powder form specially adapted for lingerie repositories, thereby surrounding his fair companion with an absolute protection against contamination and relieving her anxiety, as it is a wellknown fact that the free use of these articles among the Elite of the Orient has for years been regarded as a sacred duty and is rapidly being adopted by the leading society ladies of this country.

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SPECIAL OFFER.—The regular price of Dr. Charles' Flesh Food is \$1.00 a box, but to introduce it into thousands of new homes we have decided to send two (2) boxes to all who answer this advertisement and send us \$1.00. All packages

are sent in plain wrapper, postage prepaid.

A sample box, which contains enough of Dr. Charles' Flesh Food for anyone to ascertain its great merits, will be sent to any address absolutely free, if 10c is sent to pay for cost of mailing. Our book, "Art of Massage," which contains all the correct movements for massaging the face, neck and arms, and full directions for developing the bust, will also be sent with this sample.

DR. CHARLES CO. 108 FULTON STREET

On Sale at all Leading Department Stores and Druggists

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FOR PILES

CORKER OINTMENT

A DOUBLE ANTISEPTIC

OUR sales are our best advertisement. Among the orders recently received was one for twenty-five dozen from Buck & Rayner, the old-time druggists of Chicago.

Mr. R. B. Ingersoll, the leading druggist of Boone, Iowa, has written us, "Corker Ointment for Piles is not only a Corker to cure, but a Corker to sell. I have guaranteed it in every instance and have never had a dissatisfied customer."

CORKER OINTMENT is superior to the "Pile cures" now on the market, but we only recommend it as an excellent means of relief. There are diseased conditions in and about the rectum (lower bowel) that it will not cure and those that it will cure.

corker ointment for Piles is prepared after a formula purchased by us from Dr. Wm. C. Brinkerhoff, 1107-1108 Steinway Hall, Chicago, who for many years, in Chicago, has made a specialty of the treatment of piles and other diseases of the rectum by The A. W. Brinkerhoff Non-Surgical Method, by which many prominent citizens have been completely cured of long-standing chronic cases.

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The Ideal Household Remedy for Any and All Pain

Convenient tablets expressly for immediate relief. Tortures of rheumatism, neuralgia and sick headache change to comfort under its use. Breaks a cold, cures la grippe, reduces fever, quiets nervousness, dispels fatigue. Contains no opiate, creates no habit, does not affect the heart, leaves no depression. Can be given from infancy to old age. Always gives relief—one bottle proves it.

Price 50 Cents

CHAVETT Diphtheria Preventive

A positively antitoxic, fruity syrup. Keeps the throat clean and free from the germs of contagion. Always to be used as the best treatment for all throat affections—colds, tonsilitis, quinsy, white spots, hoarseness and coughs. Its timely use prevents development of diphtheria, scarlet fever and all contagions having their origin in throat infection. Pleasant and perfectly safe.

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FOR HALF A CENTURY
COE'S

COUGH BALSAM



Has been the leading remedy for Whooping Cough, Croup, Coughs, Colds, Asthma and all Throat and Lung Diseases. It is the best and cheapest cough remedy in the world—will break up a Cough quicker than anything else. Try it.

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For Dyspepsia, Weak Stomach, Sick Headache, Impaired Digestion, Constipation, Disordered Liver. All diseases that arise from a disordered state of the Stomach and Bowels, yield at once to its healing powers. The worst case of Dyspepsia in existence, even where the patient has lived for years on graham bread and the simplest diet, can be CURED by COE'S DYSPEPSIA CURE.

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somely lithographed in colors, has a capacity of one and

DERMACILIA OINTMENT is a food and tonic for the skin, healing and antiseptic preparation for Sores of all Kinds. It meets every requirement of the home; is a scientific and popular toilet article for the face and body, and speedily cures:

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The microscope proves 95 per cent of all scores is perpetuated by disease Germs, and also proves that DERMACILIA OINTMENT kills these Germs. DERMACILIA was invented and developed by a thorough Bacteriologist and Chemist to meet the necessities of modern knowledge relating to infections of the skin and scalp with Disease Germs.

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A very liberal trial box sent to anyone sending 10 cents FREE! to cover cost of mailing, during the year 1905.

ADDRESS

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CURES THE MOST SEVERE

COUGHS AND COLDS

Read this convincing evidence:

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Cures in One to Three Days

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See that your storekeeper uses a National and you never will have a dispute.

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MAKES THE HAIR GROW.

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Lana Oil is a skin food, not only healing in its nature, but supplies the decaying tissues with that which is necessary to prolong the beauty of youth::::

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It nourishes the gray hairs and gradually restores the *original* color. It cures eczema, dandruff, and stops falling hair. Gray hair, and hair on which a dye has been used, is positively repulsive to most people.

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is made from hand-picked apples, is inexpensive and delicious. Its continued use will positively **Cure Indigestion**.

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A DISEASE THAT BAFFLES MEDI-CAL SKILL.

It Kills One of Every Five That It Attacks.

It's Easier to PREVENT Pneumonia Than to Cure It.

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WILL CURE A COLD--WHICH IS THE ACTIVE CAUSE OF PNEUMONIA--THE GRIPPE, AND

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Over a million bottles sold in Boston and New England the past twelve years has reduced the death rate in Boston from pneumonia one-half.

Bottle convenient to carry in the vest pocket; "little sugar pellets" pleasant to take. Children are fond of them; never have to Strangle a Child forcing it to swallow No. 3 pills.

They are only 50 cents a bottle, contain THREE times as many doses as the imitations and substitutes offered for 25 cents. Remember that there is NO "just as good remedy" as Dr. Hilton's Specific No. 3. It's the FIRST remedy ever advertised to cure a cold, the grippe and prevent pneumonia. All druggists, or by mail of G. W. HILTON, M. D., Lowell, Mass.

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THE seductive fragrance of a really good perfume is never difficult to distinguish from the flat, rank odor of a cheap one. Really good perfumes are not nearly so easy to find as may be imagined, and it is quite rarely that you find a perfumer who maintains a high grade of excellence throughout his entire products.

We carry a full line of The Hess Company's perfumes. We do so because it has been conclusively demonstrated to us that no other line of perfumes made holds up its entire product to such a high grade

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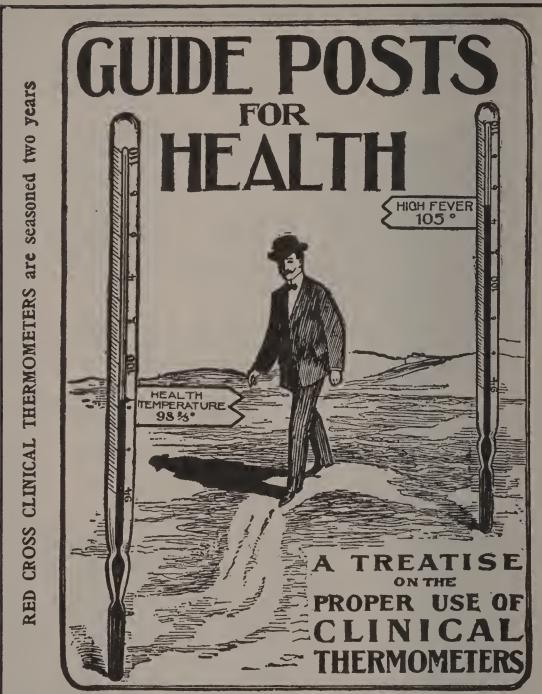
Jid Violet Blush Rose White Rose, Purple Lilac, Pansy Blossom, Jocke

Wild Violet, Blush Rose, White Rose, Purple Lilac, Pansy Blossom, Jockey Club, Lily of the Valley, Carnation Pink, Trailing Arbutus, Heliotrope, Crab Apple Blossom, White Lilac, Swiss Bells, in one ounce bottle. \$1.00

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The genuine have a Red Cross etched on each Thermometer in connection with our name. Write for our 24-page pamphlet giving general information regarding Clinical Thermometers, which we will forward you gratis upon application. The above is a cut of the cover page of same.

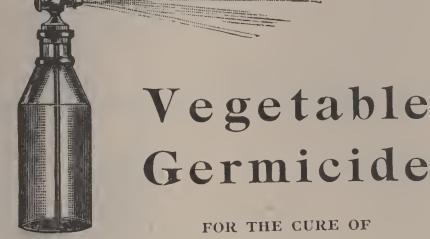
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Catarrh,

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For Men, Women and Children

The Radium Shoulder Brace has back of fine curved spring steel covered with sateen, with sateen under the arms, and patent cast-off hooks. Women's, Girls' and Boys' brace is of smaller pattern, with patent clasps which cannot tear or cut the garments.

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If you are sick or run down and your physician orders you to get a bottle of wine, you want the best, the purest and the most nutritious.

Irondequoit Port Wine is Seven Years Old,

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Make it a most palatable, clean and wholesome product.

For sale by druggists only.

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hasproduced more and better results than all others combined.

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ANTI-FRECKLE
CREAM,
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TOOTH PASTE,

Each, 35 cts.

Free sample of each for 2-cent stamp.



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THE faint, elusive fragrance that pervades the personality of the fastidious woman, clinging impalpably to her garments and her hair, yet never asserting itself beyond the merest suggestion of scent, is as indispensable to her charm as fine linen and rare laces.

The fashionable woman of the present day is known as much by the particular scent of perfume which she uses, as by any other attribute she may possess. She frequently wears in her bodice a small piece of flannel that has been saturated or dampened with her favorite perfume. The Le Maire Perfume Company's delightful perfume (The Gibson Girl) is something every fastidious woman will appreciate. It is a delightful, lasting odor, full of fragrance, put up in glass stoppered bottles, in three sizes:

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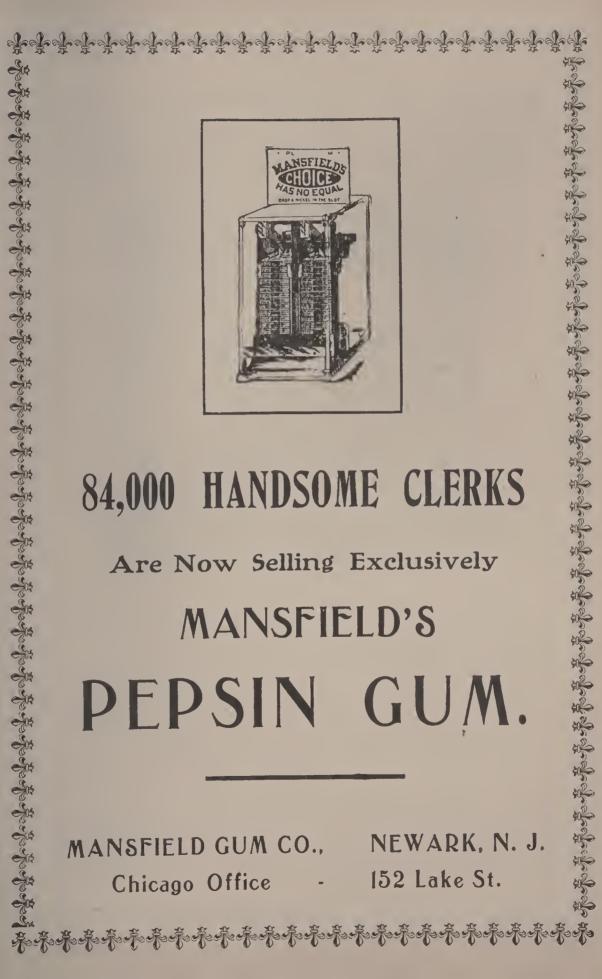
All genuine Imperial Crown requisites for the toilet bear the seal engraved trade mark stamped as reproduced in the lower left-hand corner.

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ASTHMA

We heartily recommend to our customers and their friends, who suffer from Asthma, Hay Fever or Severe Bronchitis

DR. TAFT'S ASTHMALENE

It is the most effective remedy known and sufferers should have the best, that medical science has ever discovered.

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The latest and safest quick-action ladies' syringe. A convenience and safeguard that cannot be secured by using any other ladies' syringe. It is the only one that can be used with ease and comfort in a recumbent or any other position. It quickly accomplishes a thorough dilation and cleansing.

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Inflammation, Congestion and Falling of the Womb, Anteversion, Retroversion and Prolapsus, Dropsy of Womb, Ulceration, Polypus, Tumors, Leucorrhæa, Profuse and Difficult Menstruation, Ovarian Tumors, Fibroid Tumors, Inflammation and Congestion of the Ovaries, Cancers in their Earlier Stages, Laceration of Cervix (due to childbirth) Radically Cured.

Have received testimonials from all parts of the world. Every lady can treat herself.

ORANGE BLOSSOM is as safe and harmless as a Flaxseed Poultice. It can be used at all times.

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Palmer's "SKIN-SUCCESS" Soap
Palmer's "BLOOD-SUCCESS" Remedy

Manufactured by The Morgan Drug Co. 1512 Atlantic Ave., Brooklyn, N.Y., U.S.A. IN USE FIFTY YEARS.

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THE MORGAN DRUG CO.

This treatment consists of Palmer's "SKIN-SUCCESS" Ointment for skin diseases, pimples, etc., 25c. and 75c. boxes. Palmer's "SKIN-SUCCESS" Soap, Medicinal and Toilet, a perfect skin preservative, 25c. per cake. Palmer's "BLOOD-SUCCESS" Remedy, the great blood purifier and tonic, 25c. and \$1.00 per bottle. A free sample of each will be furnished upon request at the store where you got this book—give it a trial.

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Color Silk, Wool and Cotton at one boiling (without staining the hands or spotting kettle) fast, bright, durable colors.

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THE KING OF TABLE WATERS

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Palatable because aerated after distillation with STERILIZED AIR

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WILL PLEASE YOU

NEPTUNE TRIPLE DISTILLED WATER is held in high esteem by the best druggists and members of the medical profession.

We hold our patrons by the excellence of our products and prompt and courteous service.

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"ZEPTO"

The Great Antiseptic Tooth Cleaning Pencil

is the only thing that will thoroughly remove tartar and all stains from the teeth without the aid of a dentist. Safe, Neat, Practical and easy to

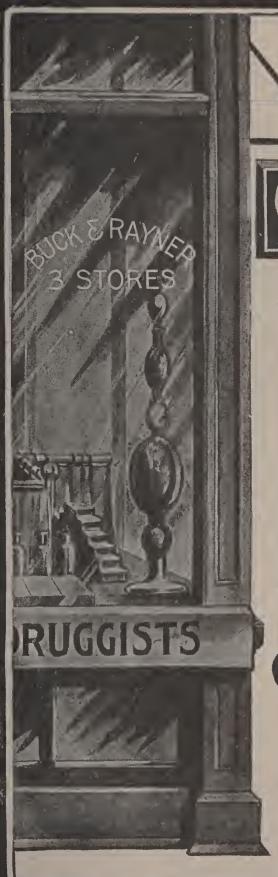
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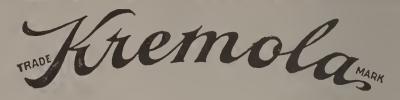
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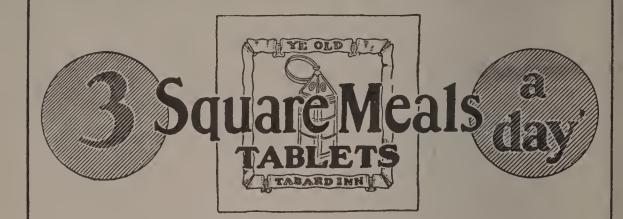
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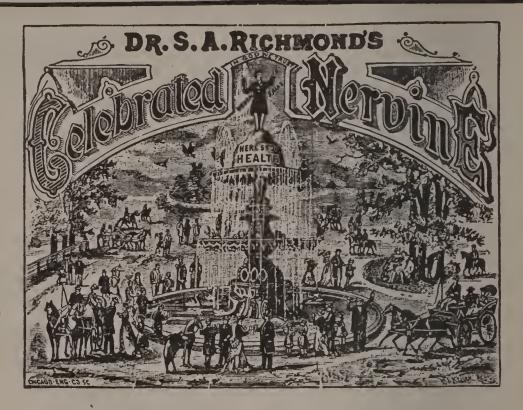
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